

THE CULTIVATOR.

THIRD

To Improve the Soil and the Mind.

SERIES.

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LUTHER TUCKER AND JOHN J. THOMAS, EDITORS.

Terms—Single copy of Cultivator,..... 50 cents.
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copies Illustrated Annual Register, }

AGENCY IN NEW-YORK.—C. M. SAXTON, Agricultural Book Publisher, No. 152 Fulton-street, New-York, is Agent for THE CULTIVATOR and THE COUNTRY GENTLEMAN, and subscribers in that city who apply to him, can have their papers delivered regularly at their houses.

ANNOUNCEMENT FOR 1855.

The question having been frequently asked us of late, whether it was our intention to continue THE CULTIVATOR at its present low price, we take this early occasion to announce to our agents and friends, our arrangements for the next year.

PRICE OF THE CULTIVATOR.

I. Publishing, as we do, THE CULTIVATOR in connection with our weekly journal, the COUNTRY GENTLEMAN, we are enabled to continue the issue of our monthly at the low rate of fifty cents, notwithstanding the increased expense occasioned by the rise in the price of paper and other materials, labor, &c. We shall, however, fix the price at one uniform rate—FIFTY CENTS—whether to individuals or to clubs; but we offer the following

PREMIUMS TO CLUB SUBSCRIBERS.

II. As an inducement to the formation of clubs, we shall send to clubs of twenty or more, a copy of the *Illustrated Annual Register of Rural Affairs* for 1855—for notice of which see last page of this number—consisting of 144 duodecimo pages, illustrated by more than ONE HUNDRED ENGRAVINGS, and got up in our usual neat style. Thus in a club of twenty, each subscriber will get a copy of THE CULTIVATOR one year, and a twenty-five cent book, for FIFTY CENTS.

PREMIUMS TO AGENTS.

III. As an inducement to Agents to exert themselves to form clubs, aside from the consciousness of the benefit they will confer upon their neighbors by placing such a work in their hands, we offer the following list of Premiums to those who send us the largest

amount of cash subscriptions to our journals for the year 1855, previous to the 10th of April next:

1. For the largest amount,..... FIFTY DOLLARS.
2. For the next largest,.... FORTY-FIVE DOLLARS.
3. For the next largest,.... FORTY DOLLARS.
4. For the next largest,.... THIRTY-FIVE DOLLARS.
5. For the next largest,.... THIRTY DOLLARS.
6. For the next largest,.... TWENTY-FIVE DOLLARS.
7. For the next largest,.... TWENTY DOLLARS.
8. For the next largest,.... FIFTEEN DOLLARS.
9. For the next largest,.... TEN DOLLARS.
10. For the next largest,.... FIVE DOLLARS.

Agents who compete for the above prizes, must, in all cases, remit with their orders, at the rate of Fifty Cents for each copy of THE CULTIVATOR, and one Dollar and Fifty Cents—(the lowest club price, where ten or more copies are taken)—for each subscriber to the COUNTRY GENTLEMAN.

Our weekly journal, the COUNTRY GENTLEMAN, the fourth vol. of which will be completed with the present year, will be continued as usual. Its terms are as follows:

Single copies,..... \$2.00, in advance.
Three copies,..... \$5.00, "
Ten copies,..... \$15.00, "

Fifty Cents a year will in all cases be added where payment is not made in advance.

TO OUR AGENTS AND FRIENDS.

Above you have our terms and arrangements for the next year, to which we solicit your kind attention, as well as your active co-operation in enabling us to carry them into successful effect. We have no new "platform" to offer. Our publications have been too long and too extensively known to require it. For TWENTY FOUR YEARS we have watched the farming population of this country, not with the eye of an uninterested passer-by, but of one mingling in their pursuits, listening to their thoughts, carefully observing their advancement, and laboring both with mind and body to work out mental and "material" profit for them, individually and as a body. When we began our labors in the old *Genesee Farmer*, our farmers had but little ambition to improve—but little desire, though their lands were deteriorating at a rapid pace, to seek a new and better way; and the years which have since passed, and witnessed so much advancement in other respects, would have seen little progress in the farmer, had he not been induced to read in and write for his paper—to emulate his neighbor's successful culture or

skillful breeding at town and county and state fairs—to bring the powers of his mind as well as his physical energies to his aid—to look, in fine, beyond the narrow present with its immediate requirements, to the future and permanent “improvement of his mind and his soil.” From the sneers, or at least the practical contempt which then met the farmer from the devotees of professional and commercial pursuits, to the general regard now paid by all thinking men to his substantial merits, and by all sagacious statesmen to his interests in the commonwealth—from the suicidal tillage practiced then, to the enlightened culture which prevails to so large an extent at the present day—from the few thousand agricultural books and journals then (1831) circulated, to the hundreds of thousands now scattered abroad, the advance displayed in the intellectual and social condition of the farmer has been great indeed. That there is room for still greater improvement and more rapid progress, and that the same influences which have heretofore proved so beneficial, will now and hereafter avail to effect it, no one can doubt. For their promotion we have labored with untiring zeal for near a quarter of a century; and to the furtherance of the best interests of our rural population, we shall devote whatever of strength and ability may be continued to us.

Keeping the great object of our journals—the promotion of the true principles of agriculture and the elevation of the character and standing of the cultivators of the soil, steadily in view—with no connection with any other concern—with neither prejudice against, nor partiality for one breeder or one seller, one machine or one manure, over others, we hope to maintain the true position that a really independent journal should hold; and we look with confidence to our friends who have so long and so successfully, with each returning year, come up to our help, to renew their efforts to promote the circulation of our journals. If those who have heretofore done so much, will take hold of the work with the determination to increase their lists for next year, and the multitude of others who realize the importance of placing such a journal in the hands of every farmer, will render them their aid, we may safely count upon a largely increased circulation for THE CULTIVATOR for 1855.

✍ We send our Prospectuses for next year, to our Agents, with the present No., and should any Agent fail to receive them, he will greatly oblige us by giving immediate notice, that the omission may be supplied.

✍ We shall be glad to send Prospectuses and specimen numbers to any subscriber or postmaster, who may be disposed to act as Agent, on application.

✍ Will our editorial friends increase our obligations, by calling attention to our new volume.

✍ In forming clubs, it is not required that all should be at one post-office. The papers will be sent to as many different post-offices as may be necessary.

Drying Potatoes to Prevent the Rot.

MR. TUCKER—Thinking the following detail of a successful experiment to prevent the rot in the potato, may be useful to your readers, I have translated it from a Dutch journal, for your pages:

“Mr. Bollman, professor at an agricultural institution in Russia, asserts, in a very interesting treatise, that drying the seedling potatoes at a high temperature, is a sure remedy against the rot. He found it out in the following way. He perceived that, putting them in the ground, the eye and the skin were often damaged. He thought that drying them would prevent the damage. In 1850 he put a certain number in a hot room, and after three weeks, he found they were dry enough to be planted. They grew very well, and yielded as much as the surrounding fields, and there was no sickness among them. Professor B. thought it a casualty, nevertheless he dried his seedlings again in 1851, and again the yield was abundant and free from sickness, though on all the surrounding fields the potatoes were attacked by the rot. In 1852 he determined to make a third experiment, and as his own seedlings were not sufficient, he had to buy others, which came evidently from a yield affected by sickness, so that some were quite rotten. After drying them during about a month, he cut them in three or four pieces, according to their size, and dried the pieces again during a week. By chance they were dried so much that he thought they would not grow at all. Contrary to all expectation, they came up so well and grew so fast, that the new potatoes could be gathered three weeks earlier than in other years. Though there was sickness all around, there was none on his field, neither on the leaves or on the bulbs.

“These interesting facts, during three years consecutively, led to an investigation, if more such cases were known, and he found two of them. Mr. Losorskey (government of Witebsk) five years previous, gathering his potatoes, put one in his pocket; coming home he laid it on the stove * where it remained during the winter. In the spring he found the dried potato: he planted it without any idea that it would grow, but unexpectedly he got an abundant yield of healthy bulbs. Since that time he always dried his seedlings with good success.

“Mr. Waisleffsky (government of Mohileff,) keeps his potatoes where he smokes his hams. Once being short of seedlings, he took some of the smoked ones and found that in the yield there was less sickness than in that of his seedlings. Prof. B. is of opinion, that they were not dry enough when planted.”

The temperature fit for drying the potatoes is not given. In the first experiment, the hot room was at 72° and upwards. As an essay, Prof. B. put some in the place where the furnace stood, and where the thermometer was at 136°. The vitality was not destroyed even, though the skins were crisped.

The trial is so easy that it is to be hoped it will be done. KAPPA. Newark, N. J.

* In Russia the stoves are mostly of earthen or stone ware, with marble top. TRANS.

Economy of Manures.

Recent readings and observations have impressed upon us deeply the persuasion that among the bulk of our farming community there is a great want of economy and good management in respect to the manures which the farm itself might be made to yield. We are not prepared to go so far as to say, with Mr. EDGERTON in *Country Gentleman* of Aug. 10th, that "no farmer ever need go off from his own farm for means to enrich it;" but we are persuaded that very many allow the fertilizing materials of their vaults, of their sinks, of the droppings of their cattle, and of their swampy lands, to go to waste—giving out their richness, not to the fields and the crops, but to the 'desert air.' We are persuaded that very few farmers are as strenuous about making and saving all the manure possible on the farm, as is the Massachusetts farmer of whom we have recently read, who says, "as to manure, it has been my constant effort to make and use as much as possible from the barn-cellar, yard, hog-pen, vault, sink-drain, &c., always using it the present (current) season. I keep loam constantly in the cellar, which is ready to be put to the droppings." This model farmer commences his winter management of his farm manures, by carrying one hundred loads of mud or black earth, to the cellar, which he uses to throw on to the droppings as often as once a week.

Our persuasion of a general wastefulness and want of economy in the management of the fertilizing materials which the farm itself yields, was considerably deepened by a portion of an extended account of an agricultural school in France, and of the farm attached to it, which we recently met with in an English journal. In this notice of the school and the attached farm at Grignon, it is said that there is little or no outlay for portable or foreign manures on the farm. Guano has been tried but poudrette is preferred, having been proved by experiment to be superior. The English visitor who gives the account to which we refer, attempted to persuade the professors, or those in charge of the farm, that there might be larger crops and more profits secured by the use of guano; but he was met with the assertion that the English farmer did not "conserve," or economize the manure of the farm like the French farmer. In this respect, we fear, the American copies more after the English than after the French pattern.

We feel convinced that much larger crops and larger profits might be secured, if farmers were at a little more pains to prevent the escape and loss of their most valuable fertilizers. For example, much valuable manure might be saved from going to waste, if farmers were at some pains to have all the urine on their premises absorbed and fixed by means of meadow muck and other absorbents or by running it into tanks. Much valuable manure might also be made on every farm, by manufacturing the contents of the vault into poudrette. Domestic poudrette can be made without much difficulty according to directions which

may be found in former volumes of this paper.* Much valuable manure might be made, more than usually is, if all that is thrown out of horse and cattle stables, was immediately mixed up or covered over with earth or muck, after the manner of the model Massachusetts farmer to whom we have already referred. Much, also, might be saved, which is now allowed to go to waste, if manure and compost heaps were more generally put under some kind of cover to protect them from the destructive influences of sun and rain and wind. Much might be done also, to enrich the farms throughout the land, if the rich black muck which the rains of many former years have washed down into our swamps and low lands, were carried back again, either by itself, or still better after having been carried to barn-yard or cellar, and there mixed with the cleanings of the stables and the droppings of the cattle and the poultry in the yards, after the manner of a compost or otherwise.

As long as a farmer suffers all the fertilizing materials above indicated to make their escape, without being made to yield their riches to his fields and crops, he must be suffering leakage and loss. While the fertilizing materials which the farm itself yields are neglected and unused, it seems as if it could be only with an ill grace and a great want of consistency and good policy that any farmer, save in extraordinary circumstances, can lay out money for guano or other marketable manures.

Securing Corn Fodder.

(In answer to W. J. Pettee, Lakeville, Ct.)—The only difficulty with corn fodder is in harvesting and securing the crop. The difficulty is greater with the compact stacks of thickly sown crops expressly for fodder, than with the larger and coarser stalks of ordinary corn. The leaves may become perfectly dry after weeks of exposure to fine weather, and the whole appear fit for stacking; when after all, the amount of moisture in the stalks themselves may be enough to cause heating and fermentation, and the loss of the whole stack. The best way is to bind in bundles, and place them at once in good, substantial, large-sized shocks, with a few of the upper and outer bundles reversed, so as to turn off the rain, which otherwise becomes lodged in the fork between the leaf and stalk. In this way, they will become thoroughly dry, and if not drawn till they are wanted in winter, will do well and cannot spoil. Or, after drying in the shock some weeks, they may be placed in small stacks, salted with five or six quarts per ton, with a ventilating hole in the middle, to prevent the accumulating of heat. This hole may be made by building the stack round three upright stakes or rails, set about a foot apart, and touching at the top; or round a bundle of long, coarse brush; or by placing an empty barrel in the middle and building round it, drawing it upwards by a rope fastened across the top, as the stack proceeds. This leaves a hole in the middle for the escape of any generated vapor.

* See July no., page 176.

Raking into cocks will answer when the stalks are thick, small, and short, but they will become wet through more readily than hay, and it may therefore be best to guard them by a good thick cap of straw on each. A straw covering is a good thing for the stacks. It is best to place the tops of the stalks downwards in finishing off a stack, as in this reversed position, they throw off water much better than in the ordinary way.

The best time to cut is when the leaves begin to turn brown and become dry, and after the tassels have fully developed themselves.

We do not think our correspondent will find the summers long and hot enough in the northern states to raise two good crops in a season, with ordinary corn. Further south, and with the earliest ripening northern varieties, it may perhaps succeed well.

The crop should always be sown in drills and never broadcast. The drills produce better, require less seed, leave the ground cleaner, are more easily harvested, and are equally easy to plant, if done in the right way.

Discordant Views—Subsoil Plowing.

MESSRS. EDITORS—I have taken your paper for a good while and always look for it in hopes of deriving some important information from it, but I will not conceal from you that I think it might be made more valuable. Your own observations seem to me to be shrewd and valuable, but are you not too much in the habit of publishing all sorts of communications or letters, whether they contain any thing useful or interesting or not, and whether they advocate practices in farming which you would approve of or not? You have letters or communications advocating both sides of all the disputed questions in agriculture, and each writer reasoning and theorizing away in favor of his own position.

It is a pity that we could not in some way have a series of careful reliable experiments conducted by some reliable person and the results published. But who is to pay the expenses of such experiments say you.

By the way as to *subsoil plowing*, you know that some *scientific* agriculturists recommend it as really indispensable to thorough first-rate farming, whilst of really practical farmers about here, I know of none who use it. And yet theoretically I have often thought that upon the soil in our neighborhood which is a pretty stiff clay, it might be highly beneficial. I should like to have you inquire through your paper if any person has made thorough and careful *experiments*, comparing the results and expense. I would not give a cent for any theories on the subject unless founded upon well ascertained facts. A SUBSCRIBER. *Long Island.*

We plead guilty, in some degree at least, to publishing communications on both sides of disputed questions, and freely acknowledge our inability to decide on all the points submitted to our readers. Take for instance, the question of our correspondent about *subsoil plowing*. We know that on some soils, it is not only con-

sidered by scientific men, but has been proved by practice to be highly beneficial. In some instances, but so far as we have heard they have been but few, it has proved of little or no value. The writer says the farmers in his neighborhood do not subsoil. Have they tested it by experiment? If not, upon what ground do they condemn the practice? This and a hundred other questions, can only be settled by a multitude of experiments in different parts of the country. It is a great mistake to suppose that one experiment, however carefully tried, is to settle these disputed questions. What may prove successful in one instance, may, in a different soil and climate, be a failure. We endeavor to give facts, and theories too, from all parts of the country, leaving it for our readers to select and adopt only what commends itself to their judgment as appropriate to their circumstances and soils.

A Durable Fence.

A durable, cheap and convenient fence may be constructed somewhat after the manner of building gravel houses, which have been brought into notice by Mr. O. S. Fowler of phrenological notoriety, and which were noticed in the issue of *The Country Gentleman* for June 15th of present year. Mr. MARKHAM, whose experiments in building house-wall, were noticed in that issue, has informed the public in the Sept. No. of the *Michigan Farmer*, that he has fences made in a similar manner, which have stood for six years, without any crumbling, cracking or decay of any kind. To all appearance he says they are harder than ever. In building fence-wall, he uses one-third water-lime. He digs down about one foot, lays in large stones, banks up to the top of these foundation stones, and then begins his gravel wall on this foundation. He uses boxes to confine the mortar until it becomes stiff or hard, in the same way as when constructing house wall. He makes the mortar quite thin, and then crowds in all the stones, large or small, which can be conveniently come at. To two bushels of stone lime, he puts about forty to fifty pailsful of water, and one bushel of water-lime. These he stirs and mixes well, and then adds forty-five to fifty bushels of gravel,—less when the gravel is fine, and more when it is coarse, as the finer the gravel, the more lime is necessary to make a good cement. Mr. M. has made fences in this way with lime alone, without the addition of water lime, but finds that they do not stand well.

To Kill Liveforever.

EDS. CO. GENT.—Tell your correspondent, H. STONE, if he wishes to kill Live-forever, to dig it up root and branch, and either burn or drown it. Having had some experience with the "animal," I have come to the conclusion that this is the only way to eradicate it. The top will often make a growth of several inches in the center of a hay-mow. Cattle will not eat it, and it will stand strong brine, applied boiling hot, without appearing to suffer in the least. I waive all claims to the offered premium. HELDERBERGER. *Westerlo.*



The Yorkshire Cow

The above is a good specimen of the old Yorkshire cow, exhibiting the characteristics of the Holderness and the Durham combined. They were deep milkers, and twenty years ago occupied almost exclusively the stalls of the large milk establishments for the supply of London.

Mediterranean Wheat.

I have no antagonism to Mediterranean wheat; but as my experience and observation are directly opposite your correspondent's "A," and the gentleman quoted, Mr. Moore of Michigan, and also of Mr. Lee of the Genesee Farmer, I cannot forbear stating it, although in a former article, on the "Culture of Wheat," somewhat of my experience was detailed. I will not answer, item for item, "A's" quotations and conclusions, but, with this simple preface, difference of climate or culture may account for the variation, give a few facts. Mediterranean wheat is no earlier than the various kinds of white wheat with which I am familiar, for it has been sown and harvested the same day with the white. It is as much affected by the weevil,—is not so good generally to yield, and is more liable to smut, rust and chess, which grows more natural with it, than with any other. It does not make so much fine flour as the varieties of white—has more bran however, and requires more skill in baking, making a quality of bread but little better than rye. Our millers pay from one to two shillings per bushel less for it, and I believe get rid of it by mixing with better.

My candid opinion is, if you cannot by good culture and early sowing, raise white wheat, then give up its cultivation, for the present at least. I have sowed nothing this fall but Genesee white, having heretofore always raised some Mediterranean. F. D. C. Charlton, N. Y.

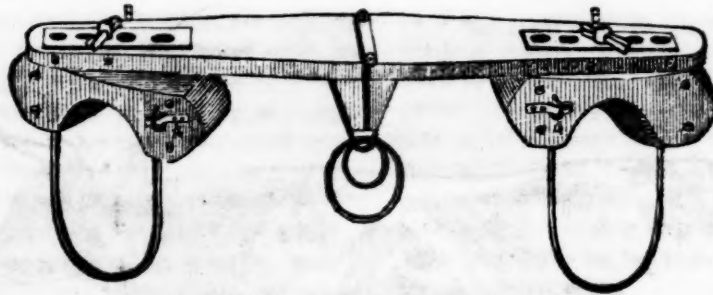
Our correspondent's experience with Mediterranean wheat differs, we are inclined to think, materially in

some respects from that of others who have grown it. We have always supposed it to be more hardy, and less subject to injury from the weevil than most other varieties. We shall be glad to hear the views of others who have grown it.

Cheap Food for Pigs.

The past season of extraordinary drouth has suggested some valuable experiments, one of which, although at present a little out of date for most farmers, may still be of use to some, and it is believed that they may generally adopt it with much advantage another year.

In consequence of the extreme scarcity of both grain and green pasture, *corn-stalks* which had been sown for fodder were used to great advantage in the following way. They are first cut up as finely as practicable by means of a straw-cutter, and then mixed with the kitchen slops for a short time, with a portion of bran or other ground food added. There should not be too much slop or water, or so much as to make the mixture liquid, but enough to cause the meal to adhere and cover the chopped stalks. Corn-stalks which have been sown so thickly as to form no ears, contain a great deal of sweet juice, and are highly nutritious,—probably as much so as the same amount of green corn in the cob, although not so tender,—while for *cheapness* this kind of food far exceeds any thing else of the kind that can be had late in summer. Such farmers as may have late sown corn, may still avail themselves of its use in the way we have described, and if taken before too mature, they may form a just estimate of this mode of feeding, for adoption another year.



Vose's Patent Ox-Yoke.

The advantages of this yoke are thus set forth, by its proprietors:

In this yoke the neck blocks are separate from the beam, and attached to it by strong bolts passing from an iron thimble or socket in the block up through the center of the beam, as represented at the letter B. This iron thimble or socket is an improvement upon which application for a patent is now being made by Mr. DEDERICK. This yoke has five decided advantages over all others: *First.* By the neck block accommodating itself to whatever movement of the ox, it is impossible for his shoulders ever to become sore or broken. *Second.* It does away with the evil arising from one ox stepping in advance of the other; as, by the moving of the blocks, the weight must under all possible circumstances, fall equally on both oxen—except, (which is the *Third* advantage,) when desiring to favor one you move him one or more holes farther from the center than his fellow. *Fourth.* By moving the neck blocks into either of the five holes, (represented by dots in the beam above,) it can be changed at pleasure into a yoke of any width required for plowing, carting, sleighing or hauling; which advantage of itself makes its value equal to two or three of the common yoke. *Fifth.* Bows in this yoke will last much longer than in any other, because the tugging or jerking of the ox does not fall on the bow, but directly on the center bolt. The bows are secured by keys passing through the bows and neck blocks represented at A. A.—there being in each block two or more holes, so that the bow can be raised or lowered at pleasure. To those who are using them they are giving in every particular, (in strength and durability as well as in ease and beauty of operation,) the very highest satisfaction.

This yoke is manufactured by Messrs. DEERING & DICKSON of this city.

Rensselaer Co. Ag. Society.

This society held its annual Fair on the grounds near Lansingburgh, last week. The show was generally good, and more than an average attendance present. It is proper to mention the good fortune of the Society in having obtained so fine a situation for its Shows. We understood that the seven acres on which they are held, with the buildings, &c., which they use, already erected, were purchased by them for \$5,000,—while the cost to their original owner was \$13,000; and that the last remnant of the debt contracted in their purchase has been just liquidated. The accommodations for exhibitors are very good, and every portion of the space is well used.

CATTLE.—GEO. VAIL, Esq., a veteran in importing and breeding cattle, exhibited several fine animals among which was his recently imported Devon Bull, "May Boy," bred by J. T. DAVY, Editor of the Devon Herd Book. "May Boy" is a beautiful animal, about 2½ years old, of excellent pedigree, both his sire (Exeter) and his grand sire (Baronet) having taken first prizes at the shows of the Royal English Ag. Society. We noticed also the Durhams shown by G. W. OSTRANDER of Lansingburgh, and the Durham Bull, North Star about 3 years old, shown by Mr. HASWELL of Hoosick. There were a number of other fine Durhams exhibited. There was a large show of *Matched Oxen* on the ground, including several fine pairs and teams.

There was not a very large show of **HORSES**. We noticed especially the pair of Matched Horses shown by M. FILE, of Brunswick, and a beautiful 3 year old stallion, "Nimrod," shown by HUGH RANKIN, of Troy. C. O. PERHAM of Troy, exhibited also a good pair of Horses.

The principal Exhibitors of **SWINE** and **SHEEP** were,—of the former, Messrs. Vail, J. M. Ward, E. M. Van Alstyne, Wm. Lape, and J. Bill. The breed shown was chiefly Suffolks; and Mr. Bill's Boar, which took the first prize, was no ordinary animal. Of the latter, Messrs. M. J. Hayner, Schaghticoke, W. McIntosh, D. S. Green and R. C. Derrick, Brunswick, and N. Brownell, Pittstown, were the chief exhibitors. Mr. J. Haswell received the first premium for the best fine woolled Buck, also for the best pen of 5 Ewes.

The Exhibition of **POULTRY** was larger and better than we had expected; Messrs. J. M. Ward, H. Boston, S. Osborn, G. C. Deyoe and J. F. Morris, Lansingburgh; S. Cross, Hoosick; M. Herrington, Pittstown, and W. C. Ball, Troy, were among the exhibitors. Mr. C. Bontecue, Lansingburgh, had a fine display of fancy Pigeons, beside other good Poultry.

The show of **FRUIT** was very good. Mr. A. Briggs, Schaghticoke, had a considerable collection; but that of S. E. Warren, Esq., Troy, was unusually large and fine. We noticed his lists of 34 varieties of Apples, 26 of Pears, 13 of Peaches and 7 of Plums. Mr. W. also exhibited Green-house plants, &c.

Wm. Newcomb of Pittstown, beside some fine Fruit and a cage of beautiful Muscovy Ducks, contributed about 300 varieties of **FLOWERS**, of which the chief were 80 or 90 distinct varieties of Verbenas and some fine Asters and Dahlias. E. M. Van Alstyne of Greenbush had a fine display of Dahlias, and Mrs. J. T. Van Namee, of Pittstown, a large variety of cut flowers and beautiful Floral Designs.

Messrs. H. Tallis, Greenbush, and J. A. Mather, Schaghticoke, were among the exhibitors of **VEGETABLES**; but the show of Mr. J. B. Ford of Troy was the largest, and perhaps the finest present.

Influence of Ammonia on Vegetation.

Translated from the French for the Country Gentleman,
BY S. W. JOHNSON.

[We are greatly indebted to our friend, Mr. JOHNSON, who is still pursuing his chemical studies under Baron LIEBIG at Munich, for the following translation of an important paper published in the Proceedings of the Academy of Sciences at Paris, on "the Influence of Ammonia in the air, upon the Development of Plants, by VILLE." It is upon investigations like this, conducted by careful and competent men, that we must rely for any real progress in the Science of plant culture.]

I. When ammonia is added to the air,* vegetation displays a considerably increased activity. The influence of this gas, when constituting 4-10.000 of the weight of the air,—becomes visible after 8 to 10 days; and after this period manifests itself with constantly increasing intensity. The leaves, at first pale green, assume a deeper and deeper color—there comes indeed, a time when they are almost black—their stems are long and upright, and their surfaces large and glossy.

At the end of vegetation, it is found that the produce is far greater than in the same plants which have grown in pure air; the plants weigh more, and contain almost double the amount of nitrogen.

The action of ammonia on vegetation, is accordingly two-fold—1. It greatly promotes the growth of plants; and 2. It makes them richer in nitrogen. This is shown by the results of the following experiments in which two equal quantities of seed were vegetated—the one in pure air, the other in an atmosphere mixed with 4-10.000 of ammonia.

In 1850, the harvest, (kind of plant not given) thus obtained in pure air, weighed (dried at 280°) 990 grains—that in the ammonia atmosphere, 1,658 grains. The first contained 19½ grains of nitrogen—the latter 65½ grains.

In 1851, a harvest (kind of plant not given) obtained in pure air, weighed 1060 grains, and contained 7½ grains nitrogen—the same crop grown in ammonia atmosphere, weighed 2086 grains, and contained 23 grains nitrogen.

In 1852, 30 kernels of wheat vegetated in pure air, and produced 183 grains of straw and 47 kernels, which weighed 170 grains. The same number of kernels grown in air containing 4-10.000 of ammonia, yielded 339 grains of straw, and 75 seeds which weighed 290 grains.

The straw grown in pure air, contained 7-10 grain of nitrogen—that produced in the ammonia atmosphere, 2½ grains.

The seeds grown in pure air, contained 3½ grains of

nitrogen—those which vegetated in the ammonia atmosphere, 10 grains.*

II. In addition to this general effect, ammonia produces others; which, though variable, and dependant upon special conditions, are nevertheless highly interesting.

It is not only possible, by means of ammonia, thus to exalt the vegetative development, but to change its order; in fact, to check some functions, and to increase the size and number of certain organs.

When the application of ammonia is badly conducted, it may lead to injurious results. Those which occurred in the course of my investigations, seem to me to shed an unexpected light upon the mechanism of vegetable nutrition; they have at least indicated to me a method by which gaseous ammonia may be practically applied to facilitate vegetation. It is of course true, that this can only be the case in green-houses and the like. I shall hereafter mention to what degree the application may be extended.

III. Upon plants, several months before their flowering, ammonia exercises no influence beyond causing a general exuberance of growth. The usual course of development is undisturbed. It indeed often happens that plants, which do not blossom in pure air, and on a poor soil, not only come to flower, but also fully fructify on the same soil, but in an ammoniacal atmosphere. If the circumstances of the experiment are a little altered—if the plants have arrived at their blossom-time, when first exposed to the action of ammonia, its effects are entirely different.

Under these new conditions, the production of flowers is delayed, and the vegetation unfolds itself in a new direction. It might be said that the plant goes back, and lives over again the period it has just finished. The stem ends itself, and branches out in all directions; it puts forth numerous leaves, and then, if the season be not too far advanced, it yields flowers, which however are all unfruitful.

If the experiment be made with the cereal grains, whose tubular stems do not permit the extension of branches, then the growth of the already headed stalk is checked, and the root shoots out many sprouts which soon attain a greater height than the mother plant. Also in this case no fruit is perfected.

IV. All these phenomena are fully in accordance with the general laws of Physiology. All organized structures are subject to a law of compensation, which maintains harmony between the various functions, and regulates the development of the organs. When one organ attains unusual perfection, it is at the expense of another; and when one function is exercised with

* In the account of these experiments from which I translate, it is not stated whether, by the term *pure air*, is meant air deprived of all ammonia, or air pure from any artificial admixture, i. e., as it exists under ordinary circumstances. This, however, is unimportant. The experiments were necessarily made on a small scale; yet they were carried out with such care, and agree so well with each other, as to be entitled to confidence. TRANS.

* The experiments of Ville, were conducted in large glass chambers, the air and moisture of which were constantly renewed, so that the circumstances of the included plants were nearly as favorable to their growth, as they could have been in the free air. The chambers were so arranged, that the composition of the air before entering, and after leaving them, could be accurately ascertained, and any desired amount of any gas, as ammonia, could be introduced at pleasure. S. W. J.

too great activity, another must fall below the normal standard. If the organs of *vegetation*, i. e. the stem, branches and leaves, manifest a luxuriance of growth beyond a certain measure, it happens at the cost of the organs of *reproduction*. The flowers are barren; the plant bears no fruit.

In my experiments, certain plants which had grown until flowering-time, were at that period brought into an ammoniacal atmosphere. The ammonia caused them to put forth a certain number of new leaves, the formation of which destroyed the equilibrium between the vegetative and reproductive functions, so that the former predominated.

V. The influence of ammonia is unequally active in different periods of vegetable growth. Its effects are more evident between germination and flowering, than from the latter to the ripening of the fruit. This difference is easily understood.

Until the time of blossoming, the whole activity of the plant expends itself in the foliage. Under favorable influences are formed a large number of leaves, which, as organs of absorption, unite their action with the cause that led to their production; they owe their development to the action of the older leaves, and lend their offices to the formation of new ones.

From the blossoming forth, on the contrary, the entire energies of the plant are expended upon the reproductive organs. A part of the leaves wither and fall off. Those which still grow, do not nearly attain the size of the older ones. Consequently the surface of absorption has diminished, and ammonia can no longer be taken up by the plant to the same extent as before. On the other hand, after flowering, the plant approaches the limits of its growth. These two considerations explain the fact that the influence of ammonia is decidedly less in the second stage of growth than in the first.

VI. Ammonia in the gaseous form, will unmistakably find application in hot-houses. The results of my experiments are so striking, that the question of its practicability may be considered as definitely settled. I have produced extraordinary luxuriance of vegetation in a hot-house containing orchidaceous plants, by adding to the air 2-10.000 of its weight of ammonia—i. e. one-half the quantity employed in the above experiments.

VII. During the dry heats of summer, ammonia is apt to act injuriously. It is therefore well to discontinue its use in the months of June, July and August. The bad effects which I have observed, have always arisen under the same circumstances, and with characters so constant, as to indicate a well defined phenomenon. They are especially noticeable in plants whose vegetation is considerably advanced. The leaves become yellow, contract, and dry up; notwithstanding the atmosphere is saturated with moisture. The evil spreads ever nearly the whole plant, excepting a certain number of the uppermost leaves, and the plant dies. The cause of this appearance is a wrong relation between the quantity of nutritive material absorbed by the leaves, and that taken up by the roots.

In general, the roots are especially destined to provide the plant with *mineral* matters. When the absorption of these passes certain limits, the plant is unable to appropriate them, and they are deposited in white, salt-like crusts on the surfaces of the leaves. This may often be observed on the broad leaves of the melon tribe, when dry weather succeeds a strong rain.

When by the co-operation of various circumstances, the activity of the leaves exceeds that of the roots, the absorption of *organic* matter predominates. From want of a sufficient quantity of inorganic (mineral) matters, the organic elements cannot be disposed of in the natural manner. A remarkable phenomenon now appears. What the roots of the plant are not able to furnish, for the development of the younger growing organs, the plant seeks to provide from its own structure; there occurs a reabsorption of inorganic matter, from a certain number of old leaves, which accordingly wither and perish. The disturbance that the vegetable organism suffers in this way, is so great that in time the whole plant dies.

In nature, frequent examples of this kind occur. If a *Portulacca* stem in flower, is cut from the parent plant, and laid on a sheet of paper in the shade, the growth continues, the seeds are formed and even ripen. In this case the inorganic substances of the seed cannot come from the soil; they must be derived from the tissues of the plant itself. Quite similar is the case I have mentioned above.

VIII. To recapitulate:

1. 4-10 000 of ammonia, added to the atmosphere, decidedly favors vegetable growth.
2. Harvests, yielded by plants grown in such an atmosphere, contain much more nitrogen than an equal harvest produced in pure air.
3. If the use of ammonia is begun two or three months before the time of flowering, the vegetation follows its usual course of development, and there results no disturbance of the succession in which the various organs of the plant are unfolded.
4. If the application be commenced just as the plant is about to put forth flowers, the blossoming is partially or entirely checked. The plant produces numerous new leaves, but no fruit.

NOTE BY THE TRANSLATOR.

The author promises a detailed account of his application of ammonia in green-houses, but no notice of it has yet met my eye. There appears to be no doubt that it may thus be employed, whether with greater advantage through the air than through the soil, is perhaps not fully settled. An arrangement to charge the air of a green-house with ammonia, to a suitable extent, might be constructed without great expense, and would probably be very advantageous in forcing succulent vegetables like asparagus, which flourish under very heavy manuring.

Whatever may prove to be the direct practical value of this discovery, it is certain that the remarkable results obtained will attract attention to this subject, and we may hope before long to possess more definite knowledge concerning the action of manures.

These experiments indicate in a most striking manner the importance of ammonia as a fertilizer. By the use of manures yielding ammonia, not only is the absolute quantity of a crop increased, but the relative amount of nitrogenous material therein is also considerably heightened. When we bear in mind the perfectly established fact, that other things being equal, the ability of a man or beast to sustain exertion, is proportionate to the amount of assimilable nitrogenous bodies (albumen, fibrin, casein, &c.) in the food, we see how important it is to be in possession of means of increasing this proportion in vegetable food, in most kinds of which it is too small to support a laboring man to the best advantage.

The injuries resulting from the excessive use of guano, and other ammoniacal manures, are of a character similar to those mentioned by VILLE, and without doubt are due to the same cause. S. W. J.

Guano and Stable Manures.

GENTLEMEN—In reply to the call made upon me in the last No. of your valuable journal, (*The Country Gentleman*.) I take pleasure in stating that at the time my essay was written, guano was sold at \$46 the long ton; and taking this as the basis of my calculation, I stated that barn-yard manure should be applied to the land adjacent to the place where it was manufactured, "because the mere cost of hauling would be as great as the cost of an amount of guano which would produce an equal if not superior effect."

I still contend that this is true in regard to the poor worn-out land in this section, for which guano seems peculiarly adapted, because the expense of hauling 40 horse cart loads of stable manure any distance over half a mile, will be at least \$5.00, and that sum expended in guano at \$46 the long ton, will produce a greater effect than the 40 loads of stable manure. Whether the effect will be as lasting is another matter, which we must determine by practical experiments I trust no one will understand me as under-valuing stable manure, because my argument was merely intended to show the importance of using the stable manure, which is a bulky article, near the place of manufacture, and thereby save the expense of labor, which consumes so much of the profits of all farming operations. My argument was also founded upon the assumption, which I think correct, that the cost of spreading the 40 loads of stable manure would cover every expense of the guano except the first cost of the article.

In regard to the manner of applying it, I will state there is great difference of opinion, and therefore I will give you my own method, without claiming it as the best. I never apply it to any but fall or winter crops, because it requires a great deal of moisture to bring out its full effects, and I prefer having it in contact with the seed, but a very short distance from the surface, although others contend it should be plowed under very deep.

I regret that I am unable to give you more valuable

information, and trust that some one, who has had more experience in its use, will reply to the interrogatories of your correspondent. Very respectfully,

CHAS. B. CALVERT.

Riversdale, Md. Sept. 25, 1854.

Albany County Agricultural Society.

THE SECOND ANNUAL FAIR.

The Exhibition took place on Washington Parade Ground in this city, Tuesday, Wednesday and Thursday of last week. The ground comprising ten acres, was enclosed, and the arrangements for the accommodation of stock and manufactured articles were very perfect. Within a track, half a mile in circuit, were three large temporary buildings, one of which was devoted to Fruit and Flowers, another to miscellaneous articles, and the third to the handiwork of the ladies. At one end of the grounds, the horses were ranged, and the cattle at the other. The coops for poultry occupied a position on one side, and the pens for sheep and swine were placed parallel with the fixtures for cattle. The limited space which we can devote to a notice of the Fair compels us to speak more briefly than we should choose of the several Departments.

STOCK DEPARTMENT.—The number of exhibitors in this department was 184. The display of horses, especially of matched and single carriage and trotting horses was very fine. We have seldom seen a larger proportion of really superior animals at any similar exhibition. Among those worthy of special mention were a span of Draught Horses exhibited by C. V. S. Truax of Albany, and a scarcely less valuable span shown by Putman and Hoyt of this city. A span of Black Hawks, belonging to Richard H. Pease, received the first premium for matched horses for family use, and attracted general attention by their beauty, spirit, and fine action. A span of carriage horses were shown by Gen. John F. Townsend, which had seen twenty five years of service and still retained the marks of blood and power of endurance. A discretionary premium was very justly awarded them. Wm. A. Wharton exhibited a span of Horses for all work, which received the first premium in their class, and were much admired. Of the single horses of superior qualities, there was no end. Many of these were from the city; still the country contributed its full quota of high-bred and well trained animals. A large number of beautiful saddle horses were exhibited, and the competition for the premiums in this class was as spirited as in any other. Very few Societies, as far as we know, offer premiums for Saddle Horses, and we think it would be well if the example set by this Society were generally imitated. The display of Horses was the great feature of the Fair, and the crowd that thronged the track seemed to be never weary of watching the splendid animals, equally anxious to make the most of their good points.

The Show of Cattle, Sheep and Swine was very small. This was partly owing to the severe drouth which has made stock look thin, but the meagre display did not

do justice to the county. New Scotland and Bethlehem, each, sent ten yokes of working oxen, which it would have been difficult to beat.

The show of Poultry was large, and, with the exception of the display made by the State Poultry Society, was the best we have ever seen. The Shanghais predominated in point of numbers, but there was no lack of specimens of all the choice varieties.

HORTICULTURAL DEPARTMENT.—A choice profusion of Fruit, Flowers and Vegetables filled the spacious hall set apart to the purpose. The past season has not been favorable to the production of large fruit, but the quality exhibited was very superior. There were 93 exhibitors in this department, and it would be impossible to do justice to them without particularizing each one. G. W. Luther exhibited clusters of grapes grown under glass which reminded one of the pictures of those which were brought by the spies from the promised land, and those shown by C. P. Williams were scarcely less heavy and finely colored. For grapes grown in the open air, John S. Gould bore off the palm. A large display of plums was made by E. Dorr, J. S. Gould and others, embracing many fine specimens and rare varieties. The Premium for the best collection of apples was taken by E. A. Fitch of New Scotland, and for the greatest variety of pears by E. Corning Jr. For the best White Doyenne and Seckel Pears, John S. Gould received the premium. The best collection of Peaches was shown by H. E. Robbins of Westerlo.

In the Vegetable Department, the show was extensive and superior, more so than usual. There was competition for almost all the premiums offered.

The Hall devoted to Household Manufactures was well filled. Evidences were multiplied that our farmer's wives and daughters have not forsaken the distaff and loom for more fashionable employments. Plain brown linen as fine as our grandmothers wove, and thread as evenly spun, along side of the embroidery and the crochet work testified that the useful and the ornamental are not antagonistic. Kersey-blankets and rag-carpets did not blush in comparison with the pictures elaborated with the needle, the wax flowers, and the curiously wrought designs in leather. The ladies of the county did themselves great credit in the display of the productions of their skill, and yet they say they can do infinitely better another year.

A building 100 feet by 86 was crowded with manufactured articles of every description. On a raised platform in the center stood eight splendid Pianos. Boardman and Gray, Barhydt and Morange and H. Meacham of this city exhibited instruments of their own manufacture. Messrs. Mayer & Collier showed Chickering's piano, and a piano of a new form, said to possess many advantages over the square instruments, manufactured also by the Chickering's at Boston. Boardman and Gray received the first premium for Pianos made in the county, and Barhydt & Morange, the second.

Some half-dozen sewing machines in operation excited a deal of curiosity. They seemed as busy as a

bee, and did not grow weary of their work. These machines are coming into quite extensive use, and are said to give satisfaction.

We have not space to speak of the many beautiful cases of Silver Ware, ornamental articles, Daguerreotypes, and specimens of binding which adorned the Hall, or of the Carriages, Wagons and Sleighs which stood outside, or of the great variety of Agricultural Implements exhibited by R. H. Pease of this city and others. The grounds were covered with objects of interest, and the crowds that thronged them were delighted and surprised with the beauty and variety which met the eye on every hand. The average attendance on Wednesday and Thursday did not fall short of 15,000 persons, and the amount of money received will exceed \$3000. The balance on hand after paying premiums and expenses, will enable the society to offer a larger amount of premiums another year, and ensure its permanence and an increasing usefulness.

The address was delivered Thursday by S. B. Woolworth, L. L. D. of the State Normal School. It was an excellent and timely production, stimulating farmers to think as well as work, and setting forth the advantages of an intelligent culture of the soil, and the importance of employing all the facilities of the day for improvement.

After the award of premiums, four ladies competed for the Prizes offered for Equestrianism. The ladies rode well, and the assembled multitude gazed with the most intense interest. Everything was done decently and in order, and at the close of the riding, Gen. Vile of Troy, the Chairman of the Committee of Judges, addressed the ladies in complimentary terms, which drew forth rousing cheers from his auditory. This over, the thousands dispersed quietly to their homes, and thus ended the Second Annual Fair of one of the most prosperous and promising agricultural societies in the State.

Black Knot on Plum Trees.

Messrs. Editors—Facts are everywhere admitted to be better than theories; and observation is the fruitful mother of the former, while speculative animus often creates the latter.

WM. SMITH, Esq., of Ballston Center, a gentleman of close observation and of much practical skill, informs me that a year ago all his plum trees were badly affected with the black knot, except one, growing with the rest and having the same general treatment. In looking about for a specific cause, he found this particular difference; at the base of the unaffected tree was a large tomato vine. Making note of the fact, this year he removed all the diseased branches from his trees, and around a portion of them set out the tomato plant, leaving part uncared for. Now mark the result. Those with the tomato at the roots, have no knot whatever, while those not treated in this way, were full of black bunches, the same as last year.

Mr. Smith offers no analytical explanation, but simply gives the public these facts. F. D. C. Charlton.

Answers to Inquiries.

LIME ON MEADOWS.—(*Wm. Storer, West Hartford, Ct.*) We need experiments to determine the value of lime as a top-dressing for grass lands. In some localities it has been considerably used, with some advantages to the grass, but chiefly with the intention of benefitting subsequent crops. It often acts beneficially on meadows, like ashes, in destroying mosses, and would probably in the case referred to. It should be first slacked, to admit of even spreading. Oyster shell lime is equal to any for this purpose. It would be best for our correspondent to try the experiment on a moderate scale, with 50 or 100 bushels per acre, applied early in spring; not trusting his eye, nor guess-work, for the results, but submitting them to weighing and measuring. It is not probable they will be very striking, if decidedly perceptible. In some particular instances, or peculiarities of soil, lime may be of much advantage, but as a general thing there is nothing like nitrogenous manures. If the land needs underdraining, as a part appears to in the case reported by our correspondent, this operation will greatly benefit the crop both in quantity and quality; after which, and not before, manure will produce a decided result, or exert its full powers.

PEAT ASHES.—I have a pretty extensive swamp which I am endeavoring to bring into cultivation. I wish to be informed if the ashes obtained from burning the bogs, cut on it, will be of benefit to the soil if spread over it, or if there will be more advantage in spreading them on the surrounding upland.

I had supposed that these ashes would be good for all kinds of soil, and yet I have been led to have some doubt about it, arising from an experiment on a very small scale, which I made some 3 or 4 years since, and which did not seem to give so favorable a result as I had been led to expect.

I shall be much obliged if you, or any of your correspondents, who may have experience in this matter, will give me the information which I seek, it being of considerable importance to me to be put on the right track,—the quantity being large. Yours, &c. **HENRY SHELDON.** *Tarrytown, Westchester Co., Sept. 13.*

We have very few if any accurate experiments in this country in relation to the subject. Peat ashes are inferior in quality to common wood ashes. In England they have proved useful to clover, lucerne, and similar crops, apparently from the amount of gypsum they were found to contain. We should think these ashes would be decidedly more beneficial if applied to the soil of *well drained* bogs, than in upland. But experiment will be the best test. On wet bogs, they could be of very little use, as they would be soon dissolved, and carried off. Can any of our correspondents furnish any facts on the subject?

MILLET.—(*W. Storer, West Hartford, Ct.*) Millet is a good crop, but the fact of its introduction long since without extensive culture at the present time, does not speak strongly in favor of its superiority to other crops. It will afford one or two tons of fodder per acre, and sometimes more, which is fully equal to good hay. The seed, which is a capital food for poultry, and valuable for other animals, usually amounts

to about 25 bushels per acre. In rare instances 60 or 70 have been produced. Like other crops, it does best on rich soils, and will succeed on such as will raise good corn and barley. A neighboring farmer, who has raised it to some extent, thinks a peck of seed enough for an acre, but we observe that some authorities recommend over a bushel—quite a difference certainly. We are unable to say what amount would be likely to yield the greatest amount and best quality of fodder, and the largest crop of grain. The results with Indian corn and timothy indicate that a large quantity of seed yields not only a larger crop, but of better quality, being of finer, softer, and more nutritious growth. Millet should be sown about the time of corn planting, but will ripen a crop if somewhat later.

PRICES OF PEARS.—Can you inform a subscriber to your useful paper, where to find a market for pears, and what prices such kinds as the Virgalieu, the Sekel, the Buerre-Bosc, Buerre Diel, Bartlett, and others, will bring? I have about twenty bearing pear trees of the above varieties and others—some large size and fine juicy fruit—the names of which we have lost. Such fruit, in the country here, brings no better price than the common pears, which are sold at from 50 to 75 cents per bushel. *Otsego, N. Y. Sept. 21, 1854.*

The price of Pears in this city, as well as in New-York and Boston, depends in a great measure upon the manner in which they are brought to market. In answer to our inquiry of several fruit dealers, as to what they would pay for such pears, they say—"We never buy pears without seeing them—they may be worth \$1 or \$4 per bushel." Well known varieties, like the Bartlett and Virgalieu, of good size, if properly picked and assorted, and sent to market in a sound state, will readily command \$3 to \$5 per bushel. We refer our correspondent, and all others who have pears to send to market, to an article published in the Country Gentleman of last week, (p. 187)

HEDGES.—(*A Subscriber, Troy, N. Y.*) There is no kind of thorn, properly so called, that can be wholly relied on for hedges. The English has succeeded well in some places in this country, and appears to do better in the extreme northern portion of the Union than in the Middle States; but every where it is occasionally liable to a sort of disease or blight, that may destroy it after it is grown to a hedge, and occasion severe loss and disappointment to its owner. The American species, known as the Washington and the Newcastle thorns, succeeded well for many years, but they too, were found to be attacked by diseases and enemies, and they are at present given up.

There is but one plant that now appears to be just the thing we want for Hedges. This is the Osage Orange. Although somewhat liable to be winter-killed at the tips of its branches, we have never known the roots and larger branches to suffer; and in a thick hedge, with the moderate growth that such a thick growth must have, our severest winters will scarcely affect it. And it so happens, that nipping the tips is only beneficial to the hedge, operating in the same way as a shearing—an operation too often neglected in

raising hedges. After many years trial, we are satisfied it will succeed perfectly in any localities where peaches can be raised, or Isabella grapes ripened.

It is raised from seed, but as this requires skillful management, our correspondent will do best to obtain the plants from nurserymen, which he can do at five or six dollars per thousand. The best way, is to plant on the line of a ditch, made for this purpose, filled with mellow earth, the ditch keeping the soil dry, and of course enabling the plants to withstand the frost much better than if soaked with water.

If kept well and constantly cultivated, such a hedge will afford protection against cattle and horses in about five years, notwithstanding the heading down each spring for a few years, at successive heights, which is indispensable to a good and compact hedge. Without cultivation, the time required will be much longer.

Nothing can be better than an Osage hedge for a fruit garden, as from the innumerable sharp thorns, no fruit-stealer would be likely to undertake more than once to pass such a barrier, and he would probably remember the effort for a long time.

W. C. S. JR., *Claremont, N. H.*—We would by no means advise you to go to the "celebrated farm," to which you allude, if your object is to learn how "farming can be made profitable." You can find much better examples nearer home. We are too apt to consider things "far-fetched," of greater value than those immediately around us. For lessons in practical farming, we can refer you to J. W. COLBURN of Springfield, and to the Messrs. TUFTS of Wardsboro, Vt., men who can teach you how to farm so as to make the business both pleasant and profitable; and we doubt not but that, were we acquainted in your vicinity, we could refer you to many others whose instructions would be equally useful.

Notices of Fruits.

KIRTLAND PEAR.—We have been favored by LEWIS F. ALLEN, of Black Rock, with specimens of this fine pear, grown on his own grounds. They were about half the size of those we had formerly seen from Dr. KIRTLAND, doubtless in consequence of the drouth. They were found, however, to maintain fully their excellent flavor, and were quite equal in quality to the best specimens of the Gray Doyenne, with rather more of the peculiar *Seckel* perfume. These are the first, so far as we know, that have fruited in this state.

THE FORD APPLE.—Specimens of the apple, to which we have given this name, have been sent us by DANIEL FORD of Canaan, N. Y., who has also furnished a short history. It has been known for some fifty years, the original tree standing on the farm of Capt. Daniel Lovejoy, in Canaan, Columbia county, N. Y. It is now dead; while standing it was large and lofty, with a thick upright top, and long slender branches. It has become extensively cultivated in that and adjoining towns.

The following is a description of the specimens received:—Large, nearly round, usually with a very

slight conical taper towards the apex; color a rich yellow; stem long, bent at a sort of joint in the middle, set quite in a shallow cavity; basin small, plaited; flesh yellowish white, solid, moderately tender, with a high, rich, rather acid flavor. It is reported to us as ripening successively through most of autumn, and with care may be kept till mid-winter. We cannot speak decisively of its merits from a few specimens, but are inclined to think it deserves the American Pomological Society's distinctive character of "very good," although too acid to be agreeable to many. It is unquestionably a fine stewing apple; and if a good bearer, with uniformly fair fruit, (of which we are not informed,) it would be doubtless worthy of more extended cultivation. If our correspondent will send grafts this fall or winter, we will distribute them among pomologists for a further trial of its merits.

THE DRUID HILL PEACH.—It has now been several years since this valuable late peach has borne with us, and it has proved uniformly excellent through all the varying seasons. It ripens about the same time as Crawford's Late, and is superior to this, to the President, Morris' White, and other late peaches, in flavor. Average specimens this year measured seven to seven and a half inches in circumference, and although the stone is small and thin, so thick is the flesh that it gives the peach rather an ovate form—the model form for peaches. We have given specimens to different pomologists, and they have uniformly pronounced it the best late peach of its season. This is the sort that is placed by Elliott's late work on fruits, on the rejected list, as unworthy of any cultivation whatever.

NORTHERN MUSCADINE GRAPES.—We have received two boxes of the fruit of this new variety from E. FOWLER and P. STEWART, of Shaker village, New Lebanon, Columbia county, N. Y. The specimens first received were somewhat injured by conveyance, and we were unable to judge properly of their merits. The second box contained bunches in a good state of preservation, which afforded a more favorable sample of their quality. They were carefully examined and compared with fruit of the Diana, and of the Isabella ripened on the warm side of a building, but were decidedly inferior to both of these in quality. This sort appears to be an improved seedling of the large native Fox grape, and is claimed to ripen a month earlier than the Isabella; if this is the case, it may prove valuable in northern latitudes, especially to those who like the peculiar flavor of the Fox grape. When these were received, however, the Diana, growing in a wholly exposed situation, (which usually matures two weeks before the Isabella,) was fully ripe, and is far superior in flavor.

The seedling grape, sent with the above, and designated "Black Cluster," (wholly different from the true Black Cluster, an old sort,) was not equal to the "Northern Muscadine," and we should think unworthy of cultivation, while better sorts are so easily to be had.

A box 12 inches by 11-2 inches square, and 8 inches deep, will contain half a bushel.

Extracts from our Exchanges.

EXPERIMENTS IN WHEAT CULTURE.

CUTHBERT W. JOHNSON, a well known English agricultural writer, in an article on the "Wheat Crop," in the Sept. No. of the *Farmer's Magazine*, says:

Now there are one or two facts which have been produced within the last two or three years, which are well worthy of the farmer's attention—not as offering certain rules for our imitation on all soils and in every situation, but as affording valuable suggestions for new experimental courses of inquiry. It is pretty certain that the best state to which the soil should be brought for the reception of the seed-wheat, is not in all cases well determined. At the July gathering at Mr. Mechi's farm, some fine specimens of wheat ears were produced by Mr. Piper, of Colne Engaine, grown on land which had not been plowed for several years, and yet had, with the aid of top-dressings of soot and other artificial manures, produced good crops of wheat every year: here was the result from an undisturbed soil. On the other hand, we have the equally successful, yet opposite practice of Mr. Smith, of Lois Weedon, who fallows for wheat every other year—still growing wheat and wheat only, year after year. His practice he briefly describes as follows:—"I divide my field into lands 5 feet wide. In the center of each land I drop or drill my seed in triple rows, 1 foot apart, thus leaving a fallow interval of three feet between each triple row. When the plant is up, I trench the intervals with the fork easily, taking my spits about 3 inches from the wheat; and at spring and during summer I clean them with the blades of the sharp-cutting horsehoe, and keep them open with the tines of the scuffler. Every year, in short, I trench and cultivate 2½ feet out of the 5 for the succeeding crop, and leave the other 2½ for that which is growing. One moiety of each acre is thus in wheat, and the other moiety fallow; and the average yield of that half acre is 34 bushels, surpassing the average yield of a whole acre on the common plan." Why wheat should be thus grown for a series of years on the same land with success in Essex and in Northamptonshire, and in one place by constantly stirring the soil, and in the other locality by never plowing, but by merely hoeing the seed in, and hoeing it afterwards for the removal of weeds, certainly seems to be phenomena worthy of our careful study, when we are considering the state of the soil the best adapted for the growth of wheat.

THOROUGH TILLAGE.

Prof. NASH, editor of the *Conn. Valley Farmer*, in his Sept. No. gives a variety of notes gathered from farmers whom he had recently visited. We copy one of them:

Our first gleanings are from a farmer in Worcester county, who showed us a three acre lot, once intolerably stony, now cleared of stones and trenched to a depth of sixteen or eighteen inches, and the soil to that depth made like a rich garden mould, by working and manuring. This lot is set to apple trees, now seven years from the seed, and already bearing considerably, many trees having something like a bushel of the choicest varieties of apples. Two acres of the lot are now into onions. The other acre has given a crop of barley, and is to give another of turnips. The onions are in drills, 12 or 14 inches apart, and if we are any judge of such matters, they must yield over a thousand bushels from the two acres, and we should not think it strange if the yield should be nearer two thousand. We have grown them on small patches at the rate of very nearly a thousand bushels to the acre, but we have never seen a heavier growth than this whole field seems likely to reach. The owner declares that he is managing this field with a view to test the question, whether three acres cultivated in the best man-

ner, cannot be made to give a clear profit over all expenses of cultivation equal to the average profit on farms of a hundred acres, in that county, cultivated in the ordinary way. His views at first struck us as extravagant, but on learning what crops he had taken from that field and seeing his prospects for large quantities of choice fruit in coming years, we were constrained to admit that he probably will obtain a greater net profit from those three acres for a succession of years than is derived from some farms of a hundred acres. His way is, to charge the field interest on its original value, to charge it for all the manure and labor, and to credit it by the selling price of whatever is sold from it and a fair market price for such produce as may be consumed at home. This farmer would be the last to speak irreverently towards Him, who gives and withholds the rains at his pleasure; but yet he believes deep and rich cultivation to be all but an absolute guaranty against harm from excess or deficiency of rain—is about as fearless of drouth as the resolute school boy, clad in wools and firs, would be of cold in skating time. With some traits of his farming we were exceedingly delighted, and we hope to revert to them at some future time.

CHEAP ICE-HOUSE.

The following plan of a cheap and convenient ice-house—one which every farmer can afford to have—was furnished to the *Rural New-Yorker*, by Mr. E. MARKS of Onondago county.

Make a box eight feet square, by nailing hemlock planks which are two inches thick, on to hemlock scantling. Let one side of the box be seven feet high, and the side directly opposite ten feet high. This gives a roof eight feet long, with a slant of three feet. It is well to have the roof boards extend over the sides of the box. Double boarding with hemlock makes a sufficient roof. Set this box on the top of the ground, in a dry and shady place, where surface water will not accumulate. No planks are needed on the bottom of the box, but sawdust must be placed on the ground inside the box to the depth of one foot, and over this place loose boards for the ice to lie upon. Cut the cakes of ice two feet square, and build a tower of ice six feet square in the center of your box, (or ice-house, we will now call it,) by laying the cakes compactly together, and filling all crevices with sawdust as you proceed. We have now a six feet cubic of ice, with a space of one foot all around between the ice and planks. Fill this space with sawdust, and cover the top of the ice with the same eighteen inches deep, and you have ice enough secured to last a family through the season. The upper three feet of the side which is ten feet high, should not be boarded up, but left for ventilation, and a place of access to the ice, and this aperture may be enlarged as convenience may require while using the ice, and for more conveniently filling in. About 800 feet of lumber will be required, and the merest tyro in the use of tools, can make it. Fresh sawdust is best, but it may be used a second winter. The dust can easily be washed from the ice at the time of using.

LARGE OR SMALL SEED POTATOES.

By an experiment carefully conducted at the North American Phalanx, the following results were obtained:

1. Large whole seed, 29 lb., 14 oz., produced 174 lb.
2. Large potatoes cut in halves, 15 lb., 15 oz., produced 124.
3. Large potatoes cut in quarters, 7 lb., produced 98 lb.
4. Medium potatoes, whole, 19 lb., 3 oz., produced 146 lb.
5. Medium potatoes cut in halves, 9 lb. 6 oz., produced 88½ lb.
6. Medium potatoes cut in quarters, 4 lb., produced 67 lb.
7. Small potatoes whole, 9½ lb., produced 117 lb.
8. Small potatoes cut in halves, 6 lb., produced 81 lb.

The percentage of small potatoes to the seed used, was greatest in the quartered large potatoes.

Repetitions of the experiment have all been in favor of large uncut potatoes for seed.—*N. Y. Trib.*

Effects of the Drouth.

MESSERS. EDITORS—Much has been said and written upon the subject of the severe drouth of the past summer, yet perhaps a few words on its effects upon vegetation, may not be uninteresting to some of your numerous readers. I, indeed, have been much interested in observing its action upon both wild and cultivated plants, and have noted the general effects upon those observed, numbering about six hundred species or more, growing in six counties in central New-York, and in some of the localities, the drouth has been as severe, and as destructive as in any part of the state, where it commenced early, and can scarcely be said to be finished yet.

The first, and most obvious and conspicuous effect, is the general smaller size of leaves. This has been alike observed on the lower herbs, and on the higher forest trees; in the latter, most especially in those leaves which formed after the middle of June. And this diminution of size has in very many cases modified their shapes, making them generally more angular. In those leaves that are *lobed*, as the oak, the indentations are deeper, as if the frame work of veins or nerves had not been well up filled with the *parenchyma* which forms the blade. In those leaves that are notched, or have many angles, the notches are deeper, and the angles sharper. In such as have slight spines at their points, these spines grew larger and more marked in their characters; and on those that had conspicuous spines, as the various thistles, they grew longer and harder.

This same scanty growth was observable also in the leaves of the grasses and the grains. These were narrower, and had an unusual dried up aspect, and this of course has affected greatly the quantity of hay and straw. As plants draw much of their nourishment from the air, through their leaves, these being smaller have diminished the size of the whole plant, and trees have grown less than usual.

Several peculiarities have been observable in the microscopic appearance and structure of leaves, making them approach more nearly those which grow in dry, arid regions. Many species are usually covered entirely or in part, with down or hairs, sometimes conspicuous, but oftener very minute and scattering. This summer all have been more hairy than usual; some species that usually have scarcely any, have many, and others that usually have many have still more. Mulleins have been more woolly, and clover more hairy or downy. On fruits the skin has been thicker; on peaches the down is more abundant.

The time of flowering has also been affected, as well as that of ripening. The flowers have generally appeared earlier, and been of shorter duration, more scanty in numbers, and the colors generally less brilliant. Fruits and seeds have been smaller.

Insects that prey upon leaves, (indeed all parts of plants,) appear to have suffered even where there was enough food, and very possibly, I might say probably, many species have had their numbers greatly thinned,

and in this manner the ravages of the drouth may in the end be compensated.

On thin soils, where the rock was near the surface, the foliage of many trees dried up in August, as if scorched with fire, and seem now dead; some are actually so, others, though leafless, or with their dried leaves still upon them, have still vitality.

Of course these effects mentioned, only occur where water has been much scarcer than usual, yet some have been observed in *swamp* species, such as only grow where is always an abundance of this element. In these cases, perhaps the unusual dryness of the air has produced the results, rather than the soil.

Drained lands appear to have suffered the least, other circumstances being equal—a strong argument in favor of thorough draining. Yours truly, Wm. H. BREWER. *Ovid, N. Y. Sept. 29, 1854.*

Slate for Roofing Purposes.

What shall we use for roofing for our buildings, is a question that is yearly becoming of more importance, as shingles that are generally used for farm buildings are every season becoming scarcer and dearer. Many substitutes are proposed, but for durability, beauty, and comparative cheapness, slate is probably the best thing that can be used. Many causes have conspired heretofore to bring this material into disrepute in some sections. One was, ignorance in those working quarries, of what should be used and what rejected. It was supposed that the scaly material alone could be split to the requisite thickness, and that the solid stone could not be worked; but with more experienced workmen, the scaly stone is now rejected and the solid only used. Of the slate, there are various colors—black, blue, red, &c., found in different localities and occasionally in the same quarry. The writer had the pleasure a short time since, of visiting the quarries at North Hebron, Wash. Co., N.Y. The slate found here, is of a fine red color, and said by good judges to be of a very superior quality. No slate of this color had, until within a year or two, been known to exist in this country, the few specimens seen being imported from Wales or from France. A Welshman, who had been a practical quarryman in his own country, first opened one of the quarries, since when some three or four companies have invested a considerable amount of capital in the business of getting out the slate for roofing, and the tiles for stone floors, known as Mosaic. The quarries are worked mostly by Welchmen, who were familiar with the business before coming to this country. The refuse slate is ground, making a very fine material for painting.

As a matter of economy, the slate must in time come into general use. It is furnished at a price but little above that of the best shingles; it is not, like them, liable to take fire from sparks from chimneys or else where, and will last a long time. We have seen it stated that an old house was torn down lately in Boston—the slate from the roof of which sold for eight dollars a square—after covering the house for more

than a hundred years. A square of slate will cover about the same superficial area as a thousand shingle. For suburban cottages, a very pretty roof may be made by using the different colors of slate in alternate squares. The accompanying specimens were brought from the quarry of P. H. NEHER & Co. R. MERCHANT.

The samples sent us, are certainly beautiful, and we should think the use of slate in roofing might often more than repay its extra cost, on account of its longer endurance, and the protection it affords against fires. Eds.

PLAN OF A KITCHEN GARDEN.

Where all the work is done with the spade, and no ornamental planting is desired, the plan furnished by our correspondent ("A Pupil of the Cultivator,") is a simple and good one, and no doubt as well adapted to the intended purpose as any we could furnish. In the country, where horse labor is always at command, a great saving is effected by laying out the kitchen garden so as to admit the use of the plow, subsoiler, cultivator, and harrow.

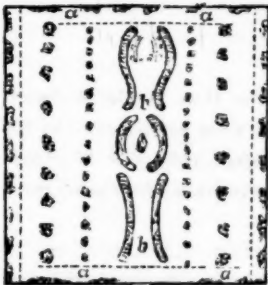


Fig. 1.

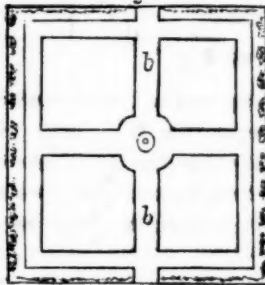


Fig. 2.

In the above figure (Fig 1), we have endeavored to show an arrangement for this purpose, where dwarf fruit trees, currant and gooseberry bushes, &c., are planted in continuous rows across the garden; the crops of vegetables being planted between, and the whole cultivated by a horse, which turns about at the ends on the spaces or alleys, *a, a*. The flower garden and ornamental part occupy a strip at the centre, on each side of the alley, *b, b*. If desired, this part may be wholly omitted. Fig. 2, shows the more common way of laying out kitchen gardens into *quarters*, where, it will be observed, horse labor can not be introduced.

Western Fruit Culture.

The Ohio Pomological Society holds its sixth session at Cleveland, Dec. 5th, and they are making an effort there to bring out a valuable class of facts on Western Fruit Culture. They ask each member to come prepared to submit information to the Society on the following points, viz:

First.—The fruits cultivated by himself, or in his region, with the proper name, and all the local and other synonyms known to him. The character of the top and subsoil in which grown; if the surface is a level plain, or hill side, the aspect and elevation. What varieties best adapted to these soils, and locations, and their productiveness. The mode of cultivation, pruning &c. The effect of manures, kind used, when and how applied.

Second.—The influence of the stock on the health, and duration of the varieties grafted, or budded on the same, and the relative merits of the two modes of propagation, if any. Also the relative effect of root

grafting (as practised by many nurserymen, and stock grafting, on the health and duration of the tree.

Third.—Observations on insects injurious to fruit, trees, and vines. The diseases or maladies to which they are subject, with the best modes to counteract these evils, with any other information of interest on the subject.

American Pomological Society.

The third session of this association was opened in Horticultural Hall, Boston, on the 13th Sept., by an address from the President, Hon. M. P. WILDER of Boston, who after heartily welcoming the members to the home of the Pilgrims, took up, and discussed with his usual ability, several important questions in pomological science. The attendance of members was large, nearly every state in the Union being represented. Our limits will permit us this week only to give the list of officers, leaving till another time our usual synopsis of the discussions, and the conclusions in which they resulted. The officers elected are as follows:

President—Hon. MARSHALL P. WILDER.

VICE PRESIDENTS.

Caleb Cope of Pennsylvania,
A. H. Ernst of Ohio,
S. L. Goodale of Maine,
Col. B. Hodge of New-York,
Lawrence Young of Kentucky,
H. F. French of New Hampshire,
Frederick Holbrook of Vermont,
Samuel Walker of Massachusetts,
Stephen H. Smith of Rhode Island,
Dr. A. S. Munson of Connecticut,
Thomas Hancock of New Jersey,
E. Tatnall, Jr. of Delaware,
William C. Wilson of Maryland,
Yardley Peirce of Virginia,
Joshua Peirce of District of Columbia,
Joshua Lindley of North Carolina,
Robert Chisholm of South Carolina,
Richard Peters of Georgia,
C. A. Peabody of Alabama,
B. F. Nourse of Florida,
Thomas Afflick of Mississippi,
Henry E. Lawrence of Louisiana,
Rev. C. H. Byington of Arkansas,
Thomas Allen of Missouri,
James Grant of Iowa,
N. P. Talmadge of Wisconsin,
W. D. Halay of Illinois,
Henry L. Ellsworth of Indiana,
D. W. Randall of Tennessee,
Dr. Henry Gibbons of California,
Edward Hunter of Utah,
James Dougall of Canada West, and
Hugh Allen of Canada East.
Secretary—H. W. S. Cleveland of New-Jersey.
Treasurer—Thomas P. James of Pennsylvania.

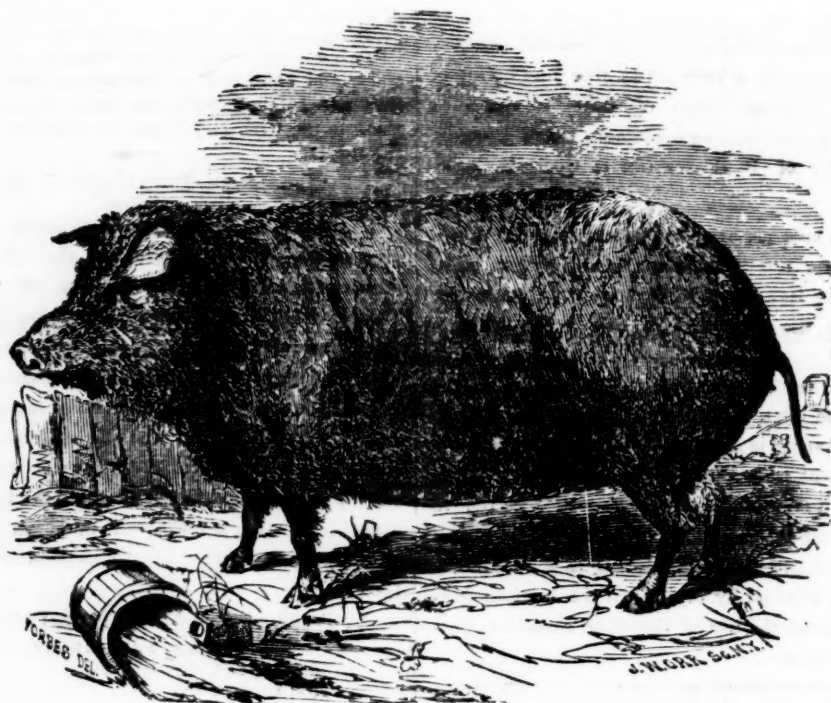
The following standing Committees were appointed:

Executive Committee. The President and Vice-Presidents ex-officio. William D. Brinckle of Pennsylvania, B. V. French of Massachusetts, J. A. Warder of Ohio, Richard Peters of Georgia, Benjamin Hodge of New-York.

On Foreign Fruits. C. M. Hovey of Massachusetts, Charles Downing of New-York, C. B. Lines of Connecticut, S. L. Goodale of Maine, H. E. Hooker of New-York, J. M. Hayes of New-Jersey, E. J. Hull of Illinois.

On Native Fruits. William D. Brinckle of Pennsylvania, P. Barry of New York, Henry Little of Maine, Robert Manning of Massachusetts, Thomas Hancock of New Jersey, J. B. Eaton of New York, B. E. Cutter of New Hampshire.

On Synonyms. J. S. Cabot of Massachusetts, William R. Prince of New York, L. M. Berkman of New Jersey, A. H. Ernst of Ohio, J. J. Thomas of New York, Robert Buist of Pennsylvania, F. R. Elliott of Ohio.



The Portuguese Pig.

The above engraving represents one of a breed of pigs imported into this country by Hon. Daniel Webster, from Portugal. They arrived at New-York about the time of Mr. W.'s death, and were passed over by his heirs, to E. W. Kimball, Esq., of Long Island. Some of this importation are now in the hands of S. W. Jewett, Esq., of Middlebury, Vt., and A. E. Beach, Esq., of New-York, to whom we are indebted for the engraving. They greatly resemble the Chinese, except in color, these being of a dark red.

Plaster of Paris as a Fixing Agent.

MESSRS. EDITORS—In a previous number of the Co. Gent., (Vol. 3, p. 327—May 25, '54.) I detailed some experiments made upon gypsum (sulphate of lime) and carbonate of ammonia, showing that they will decompose each other when dry, and from this inferring that the use of the former as an ingredient of compost heaps, to retain the latter liberated by decay, was founded on truly scientific principles.

During the summer I have extended these investigations, and experiment has demonstrated what was before inferred.

A few ounces of gypsum or sulphate of lime, (dry, but not burned,) was exposed to the fumes and gasses arising from the vault of a privy, for a few weeks, and then carefully examined, when it was found to contain a sensible amount of *sulphate of ammonia* which had arisen from the absorption and decomposition of the carbonate of ammonia, given off from the decaying night-soil. The amount was small, but the conditions of the experiment were such that a large amount could not have been expected. Yet this small amount proved the theory correct.

Another experiment, still more decisive, was tried. Some gypsum was spread upon a common plate; this set upon a pile of horse-stable manure, a small box inverted over it to prevent any manure coming in contact with the gypsum, and the whole covered with the manure, which was accumulating from day to day.

The pile was continually undergoing decomposition and decay, attended by some heat. At the end of some weeks, the gypsum was taken out, exposed to the air a day or two, and then chemically examined. It was still nearly dry, that is, not wet, and contained a very notable quantity of *sulphate of ammonia* and *carbonate of lime*, proving most decisively that as carbonate of ammonia was generated by the decomposition and decay, it was absorbed and decomposed by the gypsum, and retained in the form of the *sulphate of ammonia*.

It has long been known and recognized that such decomposition took place whenever these materials were in actual contact, and dissolved in water, but many have denied that it would take place when dry, and hence that gypsum was of no use in a compost, or mixed with barn-yard manure, to fix the ammonia, for in such cases it was not dissolved, but merely moistened generally. The experiments published last spring, and especially these now mentioned, prove that it *will retain it*, partially at least. When they are mixed in piles, the conditions for the decomposition are much more favorable than in the experiments made, for then they are in contact, and moistened, and the instant the one is liberated by decay, the other decomposes and retains it.

It is unnecessary here to enumerate in detail the applications, many of which have long been used without any doubts of their efficacy, by those reaping the advantages. It forcibly suggests the use of gypsum with

guano, and all highly ammoniacal manures, also with barn-yard manures and composts. It recommends spreading it over and mixing it with piles of stable manure, which are accumulating through the summer, and generally rapidly wasting by heating, nearly as fast as it accumulates.

But I will let your practical readers make such applications as their good sense will dictate. Yours truly,
WM. H. BREWER. *Ovid, N. Y., Oct. 7, 1854.*

The Concord Grape.

No horticultural production has excited a greater interest of late years among pomologists, than this new seedling grape. Its hardiness, productiveness, large size, and reputed earliness of ripening,—nearly a month before the Isabella,—have given it very strong claims, at least for a thorough trial.

In consequence of the repeated inquiries which have been made of us as to its quality, we recently made application for a specimen of the fruit, and have been politely furnished by E. W. BULL, its originator, with a box of beautiful bunches, which came in fine condition, notwithstanding a railway ride of several hundreds of miles.

Although the largest bunches had been previously selected for the different horticultural exhibitions, and the drouth of the season had sensibly affected their growth, these were the most showy of any native grape we have met with. The berries measured about three fourths of an inch in diameter, and were almost perfect spheres; the bunches were nearly as large as the one already figured in the horticultural journals, sufficiently compact, and handsomely shouldered,—nearly resembling a well ripened bunch of the Black Hamburgh externally. We have been informed by some of our cautious friends, that they had seen bunches at the exhibitions this season, that were decidedly larger than the figured representation.

The dense bloom which covers the berries adds much to the showy appearance of this grape.

Of the quality and flavor, we cannot speak so highly. We consider it as rather inferior to the Isabella, so far as we could judge from specimens conveyed a long distance in a close box. The skin is remarkably thin and tender, and the exterior portion of the berry more juicy and freer of pulp than the Isabella, but the central portion or core holding the seeds, is larger than in the Isabella, Diana, and most other American sorts. The flavor is good, but not of the highest quality. Of the time of ripening, we cannot judge of course, although it is reputed to be much earlier than even the Diana.

As to the real merits of this variety, we are inclined to consider it a valuable acquisition, although we esteem fine flavor when placed against fine appearance, much more highly than many pomologists. As a hardy vine, and an early, large and showy fruit for market, we shall not probably find anything to compete at the north with the Concord grape; but those who desire a sweet, delicately flavored variety, for home use,

without regard to size, appearance, or productiveness, will choose the Diana; which is only about one fourth the size of the Concord, in berry and bunch.

A New Pear.

We have received from L. W. PUFFER, of Stoughton, Mass., half a dozen specimens of a new pear, raised by JAMES SHEPARD, Esq., of Dorchester. We are informed that the tree fruited the first time last year, that it is a great bearer, the fruit hanging in clusters of two or three each. The tree, a seedling, is eight years old, and is now about sixteen feet high, with a diameter of four inches, one foot above the ground.

The fruit is not of the highest character, so far as richness is concerned, but its very agreeable melting texture, and fine flavor, render it a desirable table fruit. The tree is described as a free grower, and should it prove a uniform and abundant bearer, this variety would be a valuable acquisition,—though less so, from ripening with so many other fine sorts.

The size is rather above medium, measuring full two and a half inches in diameter each way; form obovate, somewhat ribbed towards the crown; color dull yellow, with a faint greenish cast, and with numerous dots and some irregular patches of russet; stem an inch long, sunk at insertion; calyx erect, in a small, narrow ribbed basin; flesh very melting and somewhat buttery, with a fine, very agreeable, although not rich flavor, as compared with the Doyenné, Belle Lucrative, &c. It should perhaps be named from its originator, the SHEPARD PEAR.

Information Wanted.

APPLICATION OF GUANO.—You will greatly oblige one of your readers, and a young beginner in the art of tilling the ground, by answering a few questions. I have a piece of clayey ground, on which is a three year old clover sod. I will be obliged to plow part of it this fall and through the winter. I also want to put on from 350 lbs. to 400 lbs of guano to the acre. Now how will I apply it? Is it best to sow 350 lbs. to the acre, and plow it under say twelve inches, with three mules; and in the spring, before harrowing, to give it a top dressing of 50 lbs. to the acre, and then plant as early as possible? I wait for your experience through the columns of your valuable paper, the COUNTRY GENTLEMAN. A YOUNG FARMER. *Maryland.*

The best mode of applying guano, is a question about which there is much inquiry at the present time, and on which we should be glad to receive the views of those who have had experience in the matter. We should not advise our "Young Farmer" to turn his guano under a sod twelve inches deep. But whether, for a spring crop, it would be best to sow the guano, and harrow it in immediately after the land is plowed in the fall or winter, or to delay the application until preparing the land for the crop in the spring, is a question which can only be decided by experiment.

The State Fair at New-York.

The experiment of holding at New-York City, a gathering in which Farmers are almost the only ones especially interested, has now been tried. The weather was against its success. For nearly two whole days, and those, Tuesday and Wednesday, on which depended entirely a punctual arrangement of articles and a brilliant opening of the exhibition, the rain was almost constantly falling. If at any time there was a clearing up among the clouds, it was only to be followed, like that of the housekeeper in the story, by greater disorder than before. The experiment was not therefore made under favorable circumstances; and yet, we doubt very much whether, even under the most favorable, the result would have been materially different. New-York is neither given to patronizing shows of solid merit, which are too dry for its taste, nor are farmers generally willing to run the risk of a visit there themselves.

And still, up to the time of opening, never was promise fairer of success. The hearty co-operation of the American Institute, and the New-York Horticultural Society, which had been promised, was depended upon, to some extent at least, to insure a general turn-out. The co-operation of the first, we heard rather a satirical bystander remark, consisted in taking in members down town at \$1 each, and admitting them to the Fair, under the general agreement that Institute members should have free tickets—that of the latter, in nearly the words of another gentleman whose temper may have been tried by the dampness, in bringing about the exhibition of rather less vegetables than could be accommodated in a peck measure.

Nevertheless the show was well worthy in many particulars, of the fullest attendance. The officers of the Society deserve great credit for the arrangement of the grounds, and several of the exhibitors of stock, for the expense and trouble to which they went in contributing so largely to the attractions of the fair. Indeed we think the department of cattle was even better than any previous year, while that of Horses embraced some very good animals, as well as not only the largest, but decidedly the best collection of mules we have ever seen. Sheep and Swine were superior in quality and good in numbers. The Poultry sheds were not as crowded as perhaps they have sometimes been, but they included stock of very general excellence. Fruits and Flowers were about an average display—the mechanical department was quite fully represented, the domestic rather thinly, and the plowing match was, we understood, a spirited and well contested trial.

Before we go on to speak more particularly of the exhibitors and exhibited, it is proper to mention the peculiar merits in the arrangement of the grounds. Everything was embraced in about twenty acres, without being too much crowded for comfort or effect. The covered pens and stalls, well enclosed, but convenient for the examination of their contents, proved absolute necessities amid the storm, as they would have been essential comforts in the sun. The shed for Poultry was well adapted for its purpose. A staging to overlook the track for horses, though very far inferior in size and appearance to that we saw at the recent Vermont Fair, would have been a great addition to the conveniences of the grounds, if people had not been so displeased because a little too much was charged for a seat, that they would not generally embrace its offered opportunities. The buildings were hardly as well put up as has sometimes been the case, but seemed to answer every purpose. The tents were well adapted in size, location and interior accommodations

to their several purposes; and the arrangements for supplying their dinners to such gentlemen as were precluded by the Society's business, from going elsewhere for them, were, both in arrangement, and in the amplitude and character of their supplies and attendants, considerably ahead of former years. Carriages were not admitted on the grounds,—a great improvement so far as the comfort of exhibitors and pedestrians was concerned, though perhaps somewhat decreasing the receipts of the Treasurer from city people who had teams of their own.

THE STOCK DEPARTMENTS comprised some of the finest animals ever exhibited in this country. As there was a considerable number of exhibitors, who had more or less of all the different kinds, and whose enterprise in importing, and care in breeding the purest and most serviceable sorts, have given them an established reputation, as well as been of no small service to our farmers generally, we have thought it better to mention the more meritorious entries of each of these in the different classes, cattle, sheep, swine, &c., by themselves. We shall thus present more concisely and in a more convenient form for comparison, the relative turn outs of the chief exhibitors, and avoid the constant repetition of their names in the different departments. In doing so we cannot hope to have escaped omissions, and can only assure our readers of an *intent* to avoid anything like invidiousness. Not only is it almost impossible, where there are so many noticeable animals, to escape some little confusion in one's notes, but the difficulty of ascertaining the ownership of some, and the want of opportunity for examining all as thoroughly as we could have wished, has thrown many obstacles to entire correctness, in our way. The fewer important errors our exhibiting friends find at our door, the better we shall be pleased.

LEWIS G. MORRIS, Esq., Expresident of the Society, was one of the very largest in contributing to the fine show of last week. His importations, which are yet going on all the time, have comprised and are now including some of the highest bred and highest priced animals England has ever allowed to cross the water. And it is not improper to remark here, that the English breeders are now finding among the enterprising farmers and associations in this country the very best markets for their animals. Should the best animals which the breeders of New-York, Ohio, Kentucky, and other states in the vicinity of each, could exhibit, be present, as we trust they may, at the National Show at Springfield, (Ohio,) a fortnight hence, we very much doubt whether England herself could conveniently raise in all respects a superior show. This is not said in a spirit of bravado. Every thinking agriculturist who has watched our importations during the last ten or fifteen years will acknowledge its correctness. In fact many of our rich men have gone into the purchasing of stock at the best foreign markets, with the same no-matter-for-the-price spirit which marks others of their number in other ways. Mr. MORRIS has not suffered this spirit to excite him beyond a proper regard for substantial merits, as well as superlative prices, and those additions which he and others of like character, have made to our country's grazing interests deserve warm commendation.

The Cattle shown by Mr. M. consist of Short Horns and Devons. The former were about 16 in number, eight of which were imported animals, and of these last five, partly owned by N. J. BECAR, Esq. who has long been associated with Mr. M. in making importations, BALCO and ROMEO, the first bred by Thos. Bates and calved in Feb. 1849, and the latter bred by the Marquis of Exeter and calved in April 1850, were very superior Short Horn Bulls, and attracted perhaps more attention than any other animals present. Their symmetry of form and neatness of limb was such as we have sometimes seen in portraits of prize animals, but have always heard sneered at by those who "knew anything about cattle" as impossible to exist. The

rest of the Short Horn stock was also very fine. Among these were two imported heifers, just received by the last trip of the *Hermann Steamer*. They were hardly recovered from the voyage, but were yet beautiful animals. As Extra Stock, Mr. M. exhibited a fine cow of his own breeding, got by "Lord Eryholme."

Mr. M.'s *Devons* were 14 in number. The 3 year old Bull "Frank Quartly," has sired much of his young stock, among which were shown several fine Bull calves, and well deserved the first prize which was awarded to him. The first prize imported Devon Cow, Birthday, was also the property of Mr. M. Fuchsia, a cow of his own breeding, was a superior animal and also carried off a prize in its class.

Mr. Morris' *South Down Sheep* were decidedly beauties. He entered a full assortment to compete for the premiums offered. The gem of the collection was "Young York," a buck 3 years old, bred by Jonas Webb, and imported last year by Messrs. M. & Becar. His cost was *eighty guineas*, and his appearance justifies his price.

The *Essex, Berkshire and Suffolk* breeds of Swine were all represented in the pens of Mr. Morris. They were all marked by the purest blood of their different breeds, and attracted particular attention, even among other fine stock. They numbered, pigs and all, upwards of fifty head. "Master Berk" was an unusually excellent Boar of the second named breed.

NOEL J. BECAR, Esq., whose name we have already mentioned as an associate with Mr. Morris in the importation and ownership of several animals shown, exhibited some superior *Short Horns* of his own raising, which we should not fail to notice. Among them were a pair of 2 year old heifers which bore off the first and second prizes in their class, and whose beauty received general commendation. All his stock, like that of Mr. Morris, is of the most unquestionable purity and merit, as well as bred with the greatest attention to the most desirable points.

Messrs. HUNGERFORD & BRODIE, from Jefferson Co., were among the largest exhibitors of imported stock. Their cattle embraced a fine lot of both *Ayrshires* and *Short Horns*. Among the former we particularly noticed a couple of very superior imported yearling Heifers, which took the first prize at the Scotch *Ayrshire* Show, last spring. They give promise of being most profitable additions to the herds of their enterprising owners. They exhibited also a very superior Bull, imported by them two years ago. He was an admirable specimen of the breed. A pair of calves of their own raising were very good,—also a two year old heifer. Their herd of pure *Ayrshires* numbers 23.

Among the *Short Horns*, exhibited by these gentlemen, were the following, which attracted general attention: St. Nicholas, a Bull recently imported,—calved in Feb. 1853, and got by Bellville, and a yearling Heifer of the same get. Both were very superior.

Among their *Swine*, was a pair of recently imported *Yorkshires*, as well as some excellent *Suffolks*. The *Yorkshire* Boar was a very fine animal, and the Sow well deserved the first prize she received, for breeding purposes. They also exhibited 6 pens of *Leicester Sheep*, including a very large and superior buck 3 years old,—a very recently imported yearling buck, and two fine pens of imported *Ewes*, respectively above and under two years old. It was especially remarked of the stock of Messrs. H. & B. that they were in the best condition possible, while many other animals on the grounds showed palpable effects of the recent severe drouth. They displayed the utmost care in their feeding, and attention to their cleanliness.

WM. KELLEY, Esq., President of the Society, exhibited an excellent lot of *Short Horn* Cattle. "Prince Albert," who took the 2nd prize in his class, was well worthy of the honor. Two of his cows also received, both from the public and the report of the committee, "especial commendation."

L. SPENCER, Esq., Westchester, included in his show,

the imported Bull "Augustus," calved Feb'y 1851—Esterville 3rd, which took the first prize at the State Show in 1850, and that at the Am. Institute in 1853—Phoebe 7th, got by the Duke of Exeter, and Peony 3rd, a yearling heifer got by Augustus. They were all worthy of particular notice, and Phoebe 7th carried off the first prize. The committee also "especially desire to commend" "Esterville 3rd," which "is a cow of very great excellence."

The show of E. P. PRENTICE, Esq., of this city, was such as might have been expected from his reputation as an *Ayrshire* breeder. His two year old Bull obtained universal encomiums as well as the first prize, and a heifer calf and 3 year old Cow, which was also successful on the prize list, shared with him the praises of cattle men. Mr. P.'s herd has always been noted for its excellence.

EDWARD G. FAILE, Esq., West Farms, had a goodly number of *Devons* on the grounds. Among them we particularly noticed several heifers of extraordinary merit, and a bull calf, "Tecumseh," of no little beauty and promise. Moreover, Mr. F. had an assortment of the feathered kind. His imported speckled Dorkings were among the very best of the breed, which by the way, we altogether prefer to the *White*. He had also beautiful Black Spanish and Bolton Greys.

W. P. and C. S. WAINWRIGHT, of Rhinebeck, were also large exhibitors of the *Devon* breed. Among their animals were "May Boy," an imported 4 year old Bull, and 2 imported yearling Bulls. Also a very superior cow three years old, imported from the herd of Mr. BAKER, of South Johnstown, by whom she was bred, and which had taken the 2nd prize as a yearling, at the Show of the Royal English Society,—and a very fine cow of their own raising. These gentlemen exhibited, we believe, about 14 head, and were successful in taking a proportionate number of prizes. We also find 2 fine Boars and a lot of excellent 5 months old Pigs, put down to their credit in our account with the *Essex* Breed, and on these, they are entitled by the report of the Committee to certainly a couple of prizes on the list, and one discretionary besides.

Without J. M. SHERWOOD's contributions the Exhibition, however large, would not have seemed complete. They were this year small but choice,—including "Lafayette," calved June 1852, "Princess 7th," calved Oct. 1853, and Red Jacket calved a month later. He also showed a *Suffolk* sow and pigs, which received a discretionary premium, from the Committee. We may also mention in connection with the stock of Mr. S., the Bull, "Wolviston," shown by Mr. AMBROSE STEVENS.

D. B. Haight, Dutchess Co. was a large exhibitor of *Sheep*, though he had also on the grounds a fine 2 year old *Short Horn* heifer from the herd of JAS. LENNOX, Esq. and a good pair of *Swine*, of each the *Berkshire* and *Suffolk* varieties. His flocks of *Sheep* at home, consist of about 50 pure *South Downs*, and nearly half as many *Cotswolds*. Of these he exhibited a number of pens,—and obtained on them several prizes. Mr. H.'s animals were well worthy a special visit.

S. T. TABOR, of Dutchess Co., exhibited a fine *Short Horn* yearling bull "Opal,"—the first prize yearling heifer, and a pair of very superior two year old heifers.

We desire to mention in addition to the above named exhibitors, WM. WATSON, Westchester, who had fine *Ayrshire* Cattle, both imported and of his own raising, among which was the first prize Bull Calf; JAS. BATHGATE, Fordham, ROBT. R. MORRIS, Westchester, and JOHN BROWN, Auburn, who showed very fine *Grades*, and received between them many of the premiums offered to that class—Mr. BROWN showing also some superior *Ayrshires*; ALVIN SLATE, Jr., Westchester Co., for 5 head of fine *Short Horns*, among which "White Star," a yearling bull, and an aged cow, were worthy of commendation; G. H. SEWARD, Tarrytown, for an *Alderney* Bull; and G. W. COFFIN, Dutchess

Co., for a very fine pair of yearling Ayrshires, a Bull and Heifer, both of which received first prizes.

We find by the Premium list that the first prize Short Horn Bull was adjudged to be "Prince Royal," owned by THOS. GOULD, Aurora. We were unfortunate in neither seeing Mr. G. nor his stock on the grounds, which we regret the more, as he included so meritorious an animal among their number, and, in addition, a prize Devon Bull, "Holkham."

Among other Cattle exhibitors we have the names of Jas. Merriam, Oriskany; Thos. Richardson, West Farms; John Oliver, Sterling,—who received the first prize for the Devon Bull, "Rover," but which we did not see; W. D. Steward, Chatham 4 Corners; Enoch Ottley, Phelps; Patrick Weir, New York; A. F. Van Cortlandt, Westchester; O. Howland, Owasco; S. A. Curtis, Canaan, Mr. Ostrander, Dutchess Co., G. and J. A. Smith, Montgomery.

H. G. SHELDON, Sennett, exhibited 10 yoke of *Working Oxen*, and among others who competed in this department, were Elon Sheldon, Sennett, M. Salisbury, Jefferson Co., and A. M. Clark, Cayuga Co.

Foreign Cattle were chiefly shown by B. and C. S. HAINES, Elizabethtown, N. J., who had a fine collection of Short Horns; R. S. COLT of Patterson, N. J., who exhibited Alderneys, and J. T. NORTON, Farmington, Ct., whose stock of home bred and imported Alderney cattle, were well represented by a fine 20 months old bull, an imported cow whose average of butter was said to be 12 lbs. weekly, another good cow and a pair of promising calves.

Among exhibitors of *Sheep* more particularly, whose names have not before been mentioned, ISAAC N. DEFOREST of Dutchess Co., was one of the largest. His stock consisted of French Merinos, and he exhibited beside, in the cattle line, the 1st premium 2 year old Devon Bull, "Winchester," and a fine yoke of 3 year old Devon Steers. WM. CHAMBERLAIN, Red Hook, had both French and Silesian Merinos,—and in addition a prize Hereford Bull and Cow. ISAAC MERRITT, Hart's Village, exhibited Saxons of fine quality, of which he has a flock of about 150, and a very good grade Devon Cow. S. A. CURTIS, Canaan, had some fine long-wooled Sheep, as well as a few beautiful Ayrshires. R. BURRETT, Burdett, was among the exhibitors of Merinos,—J. S. HALLOCK, Milton, among those of Cotswolds, and OSCAR GREGG, Blooming Grove, of middle-wooled. The chief show of fat Sheep was made by E. GAZLEY of Clinton, Dutchess Co. JOSEPH HASWELL of Hoosick, showed fine cross breeds and Merinos.

We must not pass by the Berkshire *Swine* of E. Wait, Montgomery, the Essexes of S. Griswold, Spencertown; or the Essexes and Suffolks of Wm. Ainslee, New-York.

Of *Foreign Sheep*, we noticed chiefly the Long-wooled of Ralph Wade, Coburg, C. W., the Silesian Merinos of Geo. Campbell, Westminster West, Vt., and a Leicester Buck just arrived per steamer Hermann, and shown by R. A. Alexander, of Kentucky. Henry S. Freeman of Lonsdale, R. I., exhibited fine Suffolk *Swine*.

HORSES.—We did not name, in cataloguing the stock of Mr. L. G. MORRIS, his premium Horses; for in truth we were so hurried as to have scarcely seen them. There were the celebrated imported thorough bred Stallion "Monarch,"—and the brood Mare, "Fashion," with foal, both of which received first prizes. ISAAC E. HAVILAND showed a beautiful pair of 16 hands high matched Horses, color light bay. John Butterfield, Utica; Clark and Jarolemon, Oncida Co., E. S. Dewey, New York; R. R. Morris, Westchester; and Reuben Murray, Canandaigua, were among the other principal exhibitors of matched Horses. Philip Helms, of Harlem, showed a Black Hawk of fine appearance and said to be, like most of that breed, very gentle,—Wm. Bathgate, Motthaven, an eight year old Black Hawk mare, worthy of notice, and Dr. P. Crispell, Jr. of Uls-

ter Co., a fine 3 year old Stallion. L. B. Brown, West Farms, exhibited a pair of horses whose united age was 39 years, which, considering this circumstance made remarkable time—also a Messenger Gray, 6 years old, which appeared to be a serviceable animal. M's. WILBUR of New York city rode a fine little Saddle Horse, whose action, the grace of his rider, and the beauty and spirit of both received universal plaudits.

We have already stated the fact of there having been a collection of Mules hitherto unequalled in this part of the country both in numbers and quality. J. L. Jackson, New-York city exhibited a very large number, including several pairs of extra weight. D. McCauley, of the same place had also a fine show, including one or two very superior teams, and Wm. Dykes, Newtown, L. I., 4 pairs of fine animals. J. Buckalew, Jamesburgh, N. J. had a team of 12, which were excellently trained and were driven as nearly as we could judge, with no greater difficulty than that of managing an equal number of horses. His whole collection included 13 pairs,—all bred in Kentucky, well trained and fine animals. E. B. Bishop & Sons of Jersey city and New Haven, Ct., had also a beautiful exhibition of them, samples of which our Connecticut subscribers will probably have an opportunity of examining at the State Fair this week. They well deserve minute attention, and would we doubt not, be found an invaluable addition to our farm Stock. Our energetic, economical farmers should take this subject into consideration.

The collection of **POULTRY** was, as we have said, rather marked by excellence than extent. H. S. Ballou, of Blackstone Mass.; R. Burrett, Burdett; H. S. Freeman, Lonsdale, R. I.; J. C. Hall, New-York; Geo. Anderson of this city; H. Johnson, Patterson; G. W. Cummings, Rochester; and W. E. Haxton, Beekman, were among the exhibitors of Black, Buff, Grey, and Spangled Shanghais, under various names,—Mr. Freeman showing in addition some beautiful Seabright Bantams, and Mr. Johnson very pretty and diminutive African ditto, besides excellent imported specimens of the English Game Fowl. There were Turkeys shown by Cummings of Rochester and Howland of Owasco,—and several coops of Ducks, Geese, &c., whose owners we did not learn. Among the comparative novelties were a splendid assortment of Fancy Pigeons from T. M. Rodman of West Farms; and a *white* China Goose, just imported, shown by O. R. Ingersoll of Brooklyn—a beautiful bird, which had unfortunately lost its mate on the passage. We saw a pair of *white Indian* chickens, as they were labelled, which were, however, very black. S. V. C. Van Rensselaer of Claverack had some beautiful Speckled Dorkings, Spangled Shanghais, and very fine Lop-eared Rabbits. These last were not shown for competition, as Mr. V. was one of the judges—consequently the premium was taken by Mr. Faile, whose collection was, indeed, scarcely inferior to the other.

We find we have not yet spoken of the Flowers and Fruits, the Implements, the Domestic and other manufactures, or of the Dairy and Produce. We must therefore be as brief as possible. Suffice it to say of the last, that the show was rather small; the competition, however, being considerable for some of the prizes offered. Jesse Williams, of Rome had on exhibition two Cheeses of 500 lbs. each, and we were told, milks some 200 cows at his home dairy. Wm. P. Ottley, of Ontario Co., showed very fine samples of different sorts of Grain, very neatly put up.

The Floral tent was well adapted and fitted up for its purposes, and presented a beautiful appearance. Among the **FRUITS**, we noticed the immense numbers which Elwanger & Barry, of Rochester, always send of Pears,—being upwards of 200 varieties, and beautiful and lip-provoking they were too. Hovey & Co., of Boston, were not far behind in numbers, they having 190 varieties of Pears and all as tempting to the eye as pear could be. Messrs. H. & Co. favored us with a list

of their newer sorts, for which we would be glad, if we could, to make room. They also showed fine specimens of the Concord Grape. E. Dorr, of this city, was, as he is wont to be, on hand with all sorts of plums, or at least 34 of them, including several new and beautiful varieties. J. W. Bailey, Plattsburgh, exhibited a beautiful show of apples, 71 sorts. Among the exhibitors of native grapes were Dr. Underhill of Croton Point, whose show was as usual, very fine, and Th. Fowler of Fishkill, who exhibited a good assortment of Isabellas, Catawbas and Dianas. The Hot House clusters shown by T. W. Ludlow of Yonkers, and those of James Porter, Esq, Princeton, N. J. were magnificent.

Among the FLOWERS were very good collections of Dahlias, Verbenas, &c. &c., beautiful bouquets and devices, all of which we must pass by. We can only say that the Society were largely indebted, as our Horticultural Society always was, to Mrs. J. T. Van Namee and William Newcomb of Pittstown, who exhibited fine assortments of different flowers and several beautiful designs. There was also worthy of particular notice, a model landscape made with mosses for the turf, little plants for the trees, &c. &c., and shown by Graeff a florist of Brooklyn. Also a beautiful case of preserved birds, insects, &c., shown by John G. Bell, Taxidermist, New-York.

Mrs. Van Namee was also a large exhibitor of Domestic Manufactures and carried off there, as well as among the flowers, several well deserved prizes. The show of Domestic Goods was generally good, though not extensive.

Mechanical Inventions, Agricultural Implements, &c., were exhibited in considerable numbers. Of the latter, R. L. Allen, Mayher & Co., and Longett & Grifling, were the chief contributors. We hope to present our readers in future numbers, cuts and descriptions of several novelties in which they have an interest, and so for the present must pass them by.

In closing, we may be allowed again to commend the exhibition, as one in many respects worthy of New-York and the officers of the society—at least as regards the grounds themselves, and what is of more especial interest to the farmer perhaps than anything else, the stock there exhibited. The lack of such attendance as gladdened the hearts of our Philadelphia friends the other day, or as has before been present at our State Shows, should not be discouraging to the Agriculturists of New-York. The Show had much against it. The weather of the first two days was enough to do away with all enthusiasm. The western part of the State felt that it had some claim to the fair this year, and did not turn out with the warmth and the will it has usually felt. County shows have, so far as we know, been generally good this year, and this has engrossed the attention of many who generally exhibit at the State Fair. Upon the whole, we congratulate the friends of the society that, with all the obstacles in its way which we have shown, and more which we have not room to tell, it has done so well this year. And our readers will pardon us for the length of the account we have given,—if in fact it be too long to interest them. There was much to speak of, as certain tired limbs that peregrinated the grounds day after day, might testify; and we trust that any tediousness on our part may not prevent general attention to the details of an Exhibition which partakes of the character of the State it represents, in being to some extent an exemplar to other members of our own confederacy, and to foreign nations the exponent of our progress in Rural Improvement.

IMPORTANCE OF DRAINING.—By a recent decree of the French government, 100,000 francs, about \$20,000, are devoted to encourage the manufacture of draining tiles for agricultural purposes in the provinces

Treatment, Value and Application of Manures.

Translated from the German of Prof. Wolff for the Co. Gent.

BY S. W. JOHNSON.

"FIXING AGENTS IN CONNECTION WITH LIQUID MANURE.—While I consider the addition of certain chemical fixing agents to the mass of yard manure as unnecessary, still their use in connection with the drainings—the liquid yard manure—is to be highly recommended; for in this case the whole of the added substance can be directly applied to the definite object of retaining vapors of ammonia, and therefore the process is not an expensive one; since a relatively small amount of fixing material is sufficient to prevent the escape of ammonia from a large quantity of the liquid, and also to fix the ammonia of the solid manure, so soon as the latter is drenched with the former. The mixture must of course be made in the reservoir which collects the drainings, and which may occupy a separate easily accessible position, or may be placed in the midst of, and covered by, the manure. Especially in the latter case, care must be taken that the fixing agent employed be such as does not occasion the separation of large quantities of solid matter, which might easily stop up the pumps. In practice three substances are especially employed as fixing materials, viz., gypsum (or plaster of Paris,) green-vitriol, and sulphuric acid. The two former cause the separation in the tanks of a more or less considerable sediment which in case of gypsum consists mostly of carbonate of lime, or when green-vitriol is employed, of a mixture of oxyd of iron and sulphuret of iron. The lime sediment, together with the liquid, which contains all the ammonia, dissolved in the form of sulphate of ammonia, may be applied directly to crops, and especially to meadows, with the greatest advantage. The iron sediment formed when green vitriol is used, is also a good fertilizer; but may at first act injuriously from containing the sulphuret of iron, which by exposure to the air, becomes again poisonous green vitriol, (protosulphate of iron,) that is destructive to young plants. By long and thorough exposure to the air, however, another body (persulphate of iron) is formed, which is innoxious. Green vitriol has long been used as a fixing agent in Switzerland, and in some parts of Belgium, while in England sulphuric acid is preferred, and the latter must always be employed where the separation of sediment is to be avoided.

A well known English farmer who has made many experiments upon the use of sulphuric acid, obtained the best results when he added 1 lb. sulphuric acid to 150 lbs. of tank liquid, (1 lb. to 20 gallons, nearly.) He also found in comparing the effects of two equal quantities of tank liquid, one treated with sul. acid, and the other applied in its usual state, that in case of the former an expenditure of \$10 gave a hay increase of \$65 value. A similar if not so great advantage may of course be expected in case of all crops to which liquid manure is applied.

The extent to which ammonia may be lost when common liquid manure (i. e. liquid which has not been

mixed with a fixing agent) is spread out upon a large surface, as when it is applied from the watering cart to a growing crop, thereby evaporating with great rapidity, is made evident by an experiment of D. Krutzesek who found that the solid residue remaining after the evaporation of perfectly putrid yard liquid, contained $3\frac{1}{2}$ pr. ct. ammonia; while the same liquid, treated with an acid (fixer) before evaporation, gave a residue containing $12\frac{1}{2}$ pr. ct. of ammonia. According to the estimates above given, the liquid manure yielded by each cow during a year, requires about 23 lbs. of sulphuric acid to fix its ammonia—if it be assumed, by way of example, that $\frac{1}{3}$ of the urine is absorbed by the straw or litter and thus becomes a part of the solid manure, while the other $\frac{2}{3}$ finds its way to the tank. To a pailful of tank liquor, may be reckoned $\frac{1}{3}$ — $\frac{1}{2}$ lb. of sul. acid, and when the solid contents of the cistern are known, it is easy to calculate the total amount of acid required to be added from time to time, every week, for example. In case the whole of the contents of the tank are applied to maintain the solid manure in a proper state of moisture, or to the preparation of compost, thus not being brought into direct contact with the crops, it is advisable to add yearly to the tank about 20–25 lbs. of acid for each head of cattle. The outlay cannot fail to be well repaid, though it must be confessed that the advantages in the last case are not so remarkable, as when the liquid manure is applied, as such, directly to the crops; and this not because the action of the acid is not as perfect in one case as in the other, but for the reason, that when yard manure and composts are skillfully prepared, the loss of ammonia is very slight, even without the use of fixing agents. I therefore recommend before making any great outlay for fixing materials to be used in the improvement of *solid yard manure or compost*, to determine by accurate experiment on the small scale, what is the money profit resulting from their application, and thus ascertain if their use will pay; but when the *yard drainings* are to be directly applied to crops, one can trust that the use of sulphuric acid in the proportions mentioned will yield an ample profit, will in fact, under favorable circumstances as to weather, &c., repay the outlay three to six-fold. It should be added that muriatic acid (spirit of salt, hydrochloric acid) may be used with the same results as sulphuric acid whenever it is cheaply obtainable.

TREATMENT OF HORSE-DUNG.—The use of fixing agents has proved to be especially advantageous with such manures as are very rich in compounds of nitrogen. Of such character is the urine of the horse, and when horse dung, itself so heating, is to be moistened and brought to a proper stage of decay, by drenching it with the liquids that have drained from it, the employment of chemical means for retaining ammonia is most necessary.

In places where large quantities of horse-dung accumulate, which must often lie several months, exposed perhaps to the summer heats, before it can be brought into use—the method proposed and carried into prac-

tice by Schattenmann, will be found very useful, if it is desired to preserve the qualities of the manure a long time unimpaired. Such a preservation can only be effected by artificially retarding the fermentation, which in case of horse-dung, may go on, as is well known, with such energy and rapidity as to cause even a spontaneous combustion of the mass. Schattenmann seeks to hinder the fermentation not only by letting all the liquids of the manure run into a capacious cistern, but he drenches the fresh dung, especially in hot weather, with considerable quantities of water, and collects the washings in the same cistern with the first drainings. By this procedure the dung is, on the one hand, saturated with moisture; and on the other hand, fermentable substances are dissolved out and removed, thus in a double manner hindering the too rapid progress of the decay that soon supersedes.

This treatment is improved upon by adding green vitriol, or where this is costly, dilute sulphuric acid or even plaster of paris to the collected liquids, in quantity sufficient to fix their ammonia, which may then be used to drench repeatedly the solid portions, as has been before written of, in connection with the management of common yard-manure.

The urine of the horse evolves during its putrefaction considerable quantities of sulphuretted hydrogen; to prevent its unpleasant odor it is well to use a few pounds of green vitriol in all cases, even when gypsum or sulphuric acid is depended upon as the chief fixing agent.

Finally the manure of sheep may be treated as has been recommended for horse manure, especially when it accumulates in the yard during summer in considerable quantity, and does not remain in the stable under the animals.

PEAT COAL AS A FIXING AGENT.*—Experiments have been made in Saxony with peat-coal which fully demonstrate its value as a means of retaining the virtues of liquid manure. By its use not only is the volatile ammonia held back, as when gypsum, sul. acid, &c., are employed, but it is carried into a less soluble combination whereby its leaching into the subsoil is hindered. Doubtless on many light soils, no inconsiderable share of the ammonia contained in liquid manure which has been treated with the other mentioned fixing agents, is lost by the action of rains. Beside this advantage, the coal has, as is well known, the faculty of absorbing any vapors of ammonia that may be floating in the air, or that are brought down in rains and dews.

Finally the porous coal acts upon many soluble mineral salts, especially upon those containing potash in an analogous manner, though not in so high a degree. It renders them less soluble, and therefore more durable in their action, as they remain a longer time in the vicinity of the roots of plants.

These properties are possessed in the highest degree by the exceedingly porous wood-charcoal: this is however too dear in Germany, to be used on the large scale.

Peat or turf coal acts more favorably as a fixer, according as the original peat or turf from which it is prepared, is more of a light and woody nature and less mingled with sand and earth."

* On this topic the author goes into details, to translate which would make this article too long. I give you, therefore, the substance of the statements in condensed form.
S. W. J.

The Poultry Yard.

THE SHANGHAIS.

Messrs. Editors—As you request communications from Poultry Fanciers on matters connected with the raising of fowls, as I am writing, I take the liberty to intrude upon your notice a bit of my experience in that line. I have raised this season between one and two hundred chickens of the buff and white Shanghai varieties. All things considered, I think the Shanghais are *one of the best* (if not *the best*) breeds of fowls we have. There is a great deal of difference in the stock of this breed. Some are coarse, loose jointed, crane-like concerns, with legs long enough to *step* over a pretty high fence; these are a disgrace to the race. Many persons who have had fowls of this description, have, after a short trial, discarded them, and think (and justly) that there is a great deal of "gammon" in the "hue and cry" about fancy poultry. Those who are procuring Shanghai fowls to breed from, should be sure to choose those that are *short-legged* and *plump* in the make, from stock that *breeds uniform* in size, shape and plumage.

The Shanghais are quiet and peaceable, good layers, and careful sitters, and what is very important, the chicks are hardy, easy to raise, and less liable to be affected by disease than those of many other breeds—particularly the Poland and Black Spanish. It is a perfect vexation to try to raise chicks of the last named breed, for they are continually drooping and dying. With the exception of what have been destroyed by rats, and other vermin, I have hardly lost a chick this season, out of the broods which were properly cared for.

I think that the *pure White Shanghais* are preferable to the *Buff*, for the reason that they are less inclined to be coarse and long-legged. Certainly, as far as beauty is concerned, they take the lead, their large red combs contrasting finely with their snow-white plumage. MARTIN BURRELL. Oberlin, O.

GAPES IN CHICKENS.

Messrs. Editors—It is my aim never to publish anything which I have not thoroughly proved to be both true and useful; but as there has been so much guess work and humbug published upon the disease in chickens called the gapes, I will publish, if you think proper, my experience in that disease. I have lost over one hundred and fifty chickens with the gapes, in the course of the summer, and have dissected many—examined them thoroughly, and found nothing to justify the conclusion that the disease is caused by worms in the wind-pipe, throat or crop, as some writers pretend, nor have I found any remedy to cure or prevent the disease, in all that I have read. On the contrary I tried all the remedies published in the Cultivator, and many more, without any good effect. I do not believe that there ever was a cure performed by any remedy I have tried. But I have observed that they were not affected with the disease in the spring

when the weather was cool, nor in the fall, but only in hot weather—that the most of them took the disease in the morning, after being brooded all night. I therefore concluded it was caused by too much brooding in warm weather. I procured a headless barrel which I set upon a grass plat—took the chicks from the hen at a fortnight old; put them in and fed them, since which I have lost no more with the gapes. You are welcome to my experience. Let others try it. CHAS. BABCOCK. Guilford, Vt., Aug. 24th 1854.

SETTING HENS.

In setting hens, thirteen eggs are enough to give them; a large hen might cover more, but a few stronger, well-hatched chicks are better than a large brood of weaklings, that have been delayed in the shell perhaps twelve hours over the time, from insufficient warmth. At the end of a week, it is usual, with setting turkeys, to add two or three fowls' eggs, "to teach the young turkeys to pick." The plan is not a bad one; the activity of the chickens does stir up some emulation in their larger brethren. The eggs take but little room in the nest, and will produce two or three very fine fowls. D. KIRTLAND. Albany.

CURE FOR WASP-STINGS.

In picking a peach from the tree, the writer was so severely stung in the finger by a yellow wasp (called, by untaught boys, "yaller jacket,") as to cause the effusion of blood, to produce pain even up to the shoulder. Saleratus, made into a *paste* with water, was soon applied as a poultice, and in half an hour had so completely neutralized the acid poison, that the swelling had entirely gone down, and nothing remained but the soreness occasioned by the puncture. This application has proved better than liquid ammonia, so far as a limited trial has proved, and is probably the best remedy for stings generally. It is important that the nearest alkaline substance at hand should be applied till a better can be found, whether it be ammonia, or even a paste of fresh ashes. In the absence of any of these, a mud poultice is an excellent application.

A VALUABLE LINIMENT.

Messrs. Editors—I send you a recipe, which I cut from a newspaper a year or more since, for a liniment that I have found valuable in my own case, for rheumatism of 14 years' standing in my right arm and shoulder, and also for lame horses. Take

1 quart alcohol,
 1 gill beef's gall,
 1 oz. oil oreganum,
 1 oz. camphor gum.

These should all be mixed and well shaken together. Any druggist can make the above quantity for about 60 cents. It may be applied by the hand, or with a rag or sponge, and should be well rubbed in. Care should be taken that the parts on which it is applied, do not get wet while using this liniment. C. G.

A box 26 inches by 15-2 inches square, and 8 inches deep, will contain one bushel.

Sundry Hints for the Season.

There is at least one very good reason why the work of the last of the autumn months should be promptly attended to. If not seasonably performed, everything will be transfixed with chains and bolts of frost, and, to most of our readers, four months must elapse before emancipation can take place. In any other month, what happens to be neglected, may be done in the first few days of the next; but here, no allowance is usually given the tardy and neglectful farmer. For this reason, it may be of essential use to point out some of the closing fall-jobs.

One of the first, is to secure unharvested crops of carrots and ruta bagas. They may sometimes escape longer, but they are never positively safe beyond the first of the month. Ruta bagas being much exposed above ground, should be gathered at once. If covered in heaps by earth, they will endure a slight freezing without injury, and hence may not need so thick a covering as potatoes and beets; but in the cellar, exposed to the air, no frost hard enough to touch them should be admitted. If air can be easily let in for ventilation below them, and ready egress is allowed for it above, they may be piled in large masses; but without this precaution they will probably heat, rot, and spoil. In out-door heaps, ventilators in the top made by thrusting in a small bundle of brush, or even of coarse straw, are indispensable. These remarks will apply in some degree to all other roots. Heaps of potatoes are often found to contain most rotten ones at the top, which is ascribed to the supposed action of frost to this most exposed part,—when the true reason is the accumulation of foul and heated air at the highest point, where it can find no escape.

The long white carrot, which has now become cultivated by many farmers and found very productive, is more exposed than the orange, and should therefore be gathered first. In dry winters, and on dry soils, the orange will often remain through the winter without injury, but this result cannot be relied on, and all roots for spring feeding (except parsnips) should therefore be timely secured.

The most successful mode of preserving large quantities of potatoes which we have witnessed, is to bury them in large heaps, and cover them first with straw thick enough to form a coating of *one foot* when *well packed*. A covering of earth or turf three inches thick over the straw, was found amply sufficient to exclude frost; while the absorbing power of the great mass of straw prevented any injury from dampness, and the thin coating of earth admitted good ventilation.

Underdraining may be performed to advantage on all soils not too wet. There are many portions of the farm that are too hard to ditch during the dryer season, that have now become sufficiently softened by the autumn rains to work advantageously. Let as much of this be done as may be practicable, and next summer's crop will tell the result.

Plowing in autumn has several advantages. It divides the labor of teams, and enables them to perform

while they are strong and vigorous, and during cool weather, a part of the work which must otherwise be done in spring, often under more unfavorable circumstances. It frequently admits of earlier sowing of spring crops by a week or more,—a difference which often makes a great increased amount. We have known a delay of ten days to diminish the oat crop more than half, as compared with earlier sown fields. Autumn is especially adapted to the deep trench plowing performed with the Michigan plow, by the exposure which it gives to the newly turned subsoil, as well as in consequence of the increased facilities for a strong draught at this season.

Wheat fields are often much injured by snow-water standing upon the surface early in spring, in large puddles which cannot escape. Surface furrows should be well cleaned out before winter so as to admit of the ready draining of these bodies of water.

Ample preparations should be made for shelter to domestic animals during winter. Sheds, stables, sheltered yards, feeding-racks and feeding-troughs, often save in a single winter their entire cost, by avoiding the needless consumption of food to impart warmth, and by preventing a waste of fodder under foot.

Manure is always valuable, but pork brings a higher price in market per hundred weight. Therefore avoid the wasteful practice many have of converting corn into manure, which should be made into pork. To prevent this waste, procure those breeds of hogs that yield a large quantity of pork for the amount of food consumed; or in other words, those that work it up into flesh, instead of merely chopping it into manure. A great saving is also made by fitting the corn for food by cooking, by which a much larger portion is digested, assimilated, and converted to pork, than by feeding uncooked corn.

The coming winter will be scarce of fodder. Much straw will be consumed by cattle, which in ordinary circumstances would be used for litter and converted directly to manure. Hence it will be advisable to draw from the woods all the fallen leaves that may be had, so far as time and team will admit. A high box to the wagon like that used for charcoal wagons, rakes, and large baskets, will greatly facilitate the work. Leaves make excellent bedding and excellent manure, more easily spread and mixed with the soil than when long straw is used.

Cattle often suffer in winter for want of water, and prefer going without for a time to travelling a half mile for it, exposed to dogs and other annoyances. Provision, if not already made, cannot be secured after the earth is frozen up. Timely care should therefore be taken in this particular. Good milk, sweet butter, and healthy and thriving animals depend more on pure wholesome water than many suppose. Care should for this reason be taken to have clean troughs; and every night the water should be withdrawn by means of a plug, so that it need not freeze, and to admit of a clean, fresh, un-iced portion the next morning.

Straw-cutters should be provided. It is true they are

often thrown aside, but this is for two reasons. One is, that in this labor-saving country, every one endeavors to abridge his work as much as possible, and often more than is profitable, as in this instance. Straw, with some hay chopped up together, with a slight addition of meal or shorts, saves not only in food, but keeps animals in fine condition, if the other requisites of thrift are preserved. These other requisites are, regular food, cleanliness, fresh air, shelter, water, and all the other ingredients of comfort. Another reason of straw cutters being thrown aside is the too frequent use of those only for corn-stalks that cut an inch or more long, instead of only a fourth of an inch. When the stalks become quite dry, cattle have a dislike to eat them, even when cut short; which may be avoided by filling a hoghead with the chopped materials, and pouring hot water over them from a Mott's furnace, or other heater, and keeping in the steam until they become well soaked, by means of a tight cover. The addition of a little meal, well mixed with them, will make them palatable.

All hardy fruit trees, and particularly apple, may be transplanted with great advantage in autumn—banking up the earth in the form of a small mound about them to stiffen them against the wind, if they are of moderate size; and staking them if large. Other young trees should be similarly embanked to exclude mice—the most perfect method. Grapes may be pruned and grafted cut; and manure may be now applied to trees better than at any other season of the year, as it will become well soaked into the ground by the commencement of growing.

A general supervision should be kept of the premises, and preparations made for winter. Leaky roofs should be repaired; loose boards on barns and fences nailed fast; sagging gates righted; broken windows furnished with glass; stables made secure against cold currents; stove pipes guarded from the danger of fire; chimneys cleaned of soot; cellars protected from the effects of decayed vegetables; and a general and particular vigilance pursued in relation to the care and management of the premises, preparatory to the arrangements for another year.

The Connecticut State Fair.

The State Agricultural Society of Connecticut held their first Fair at New Haven last week. As the first, it was very successful; and indeed in many particulars it would have done honor to years of experience in Fair arrangements and direction. The grounds were easy of access, the city never so full of people, nor the people ever more orderly or more generally satisfied. The weather, which was fine on Tuesday and Wednesday, threatened a little Thursday, which may have somewhat lessened even the large attendance on that day. This was variously estimated,—the lowest and we think the most correct calculation, ranking it, when the most were present, at 15,000. The exhibition of Working Cattle was of course the main point in a State which gives so much attention to this important particular in farm economy. The grounds contained

about 25 acres. A building now nearly completed for an Orphan Asylum, was situated in the northern part, and well fitted up for the show of Domestic Manufactures. The track ran around most of the other buildings, while the stalls and pens were ranged about the sides. This track, too, was a very fine one,—a half-mile in length and prepared with the utmost care. The tents—the same, we were told, that were recently used at Philadelphia—were also commodious in situation and fitting up.

Entries of CATTLE were made by about 218 individuals. *Devons* and crosses with them, predominated both in numbers and excellence. Among the exhibitors of pure animals of this breed, imported and home bred, Messrs. S. & L. HURLBUT, of Winchester, deserve principal mention. They have each spent nearly a life-time in breeding good and serviceable cattle both for their own dairy purposes and for sale. Out of a herd of about 75 they were compelled by want of accommodations on the part of the railroads, to bring only 16 for exhibition. And we may take occasion to say here, that the Connecticut R. R. companies would have been wiser, both as regarded their own interests at the time, as influencing attendance on future occasions of the kind, and indeed even the ordinary travel on their roads, if they had taken a little more pains to make respectable provision for transporting articles for exhibition and the people themselves. It was a general complaint that many were prevented from attending on this account, and we can speak from our own knowledge of trains having been detained to almost double their table time by want of locomotive power.

The best of the aged animals shown by the Messrs. H. was by far their imported bull, "Albert." His merits, especially as regards breadth of back and chest, were good. His progeny were all strongly marked with the same points, and two yearling bulls among them deserve particular commendation. It is proper to state that "Winchester," Mr. Deforest's 1st prize 2 year old Devon bull at the recent New-York fair, and Mr. Steward's "Empire," which took the 2nd prize in the same class, were both from the stock of the Messrs. H. Mr. J. M. BLAKESLEE, of Watertown, was another Devon exhibitor. His cattle were for a long time among the most successful at the shows of the Am. Institute, and his show, which consisted of 30 head, was marked by very general excellence. Mr. B. has also 36 head now attending the fairs of Virginia and other southern states. Among other exhibitors of this breed, were Messrs. E. T. Linsley, West Meriden; F. W. Cowles, Farmington; S. Griswold, Torrington; and Messrs. Phelps & Cook, from Litchfield Co.

Other breeds present were not so noticeable. Robbins Battell of Norfolk, exhibited *Ayrshires*; J. T. Norton, his imported *Alderneys*; and T. S. Gold, West Cornwall, and E. B. Bishop, New Haven, *Durhams* of very fair quality.

Among the *Working Cattle*, foremost in attracting public attention, was the PORTLAND team, numbering 22 yoke. We understand the heaviest pair weighed 5120 lbs., and were owned by Jos. Hall. There may, however, have been heavier ones among them. Mr. N. B. Smith, of Woodbury, among whose cattle we noticed a good pair of 2 year old Devon steers, and Mr. Willis Smith of Torrington, were among other exhibitors. We do not wish to offer any criticism where all were so nearly on a par. Suffice it to say that we have never seen, and we think there has never been in this country, a show of oxen more superior in themselves and in their training.

Horses were present in goodly numbers, though containing few specimens of more than ordinary merit. Among exhibitors we notice R. Battell, Norfolk, who showed 3 stallions of the Morgan blood, one of which was sired by Black Hawk, and a four year old mare with yearling colt; Enoch Coe, Middletown, for a four year old Morgan Stallion; S. and L. Hurlbut,

for a pair of Blacks, 16 hands high, and serviceable animals; Walter Booth, Jr., Meriden, for a pair of Bay Carriage Horses; Capt. Foote of New Haven, for a team of four,—the wheel horses being a large and handsome pair, and the leaders a showy span of black Ponies; and A. N. Hungerford, Wolcottville, for a pair of 8 year old black ponies. The dog cart of Mr. Arthur Bronson, Greenfield Hill, with tandem team, attracted considerable attention.

Of Mules, E. Bishop & Sons were the only exhibitors. They showed a team of four, which we have already commended in our account of the New-York Fair. We may in connection, correct an error there, by which a "very large number" of the mules shown were apportioned to Mr. J. L. Jackson. He had but four pair on the ground,—which were, however, very fine heavy animals, and which as we have been informed, were purchased of Mr. Bishop for \$1600.

SHEEP were not very largely represented. There were the New Oxfordshires of J. T. Andrew, and T. L. Hart, West Cornwall; the Silesion Merinos of Geo. Campbell, Westminster West, Vt; French and Spanish ditto, shown by L. & A. Whiting of Torrington; South Downs, shown by Dr. T. S. Gold, of West Cornwall; and the imported Sheep of Bennett Peck, Woodbridge. Natives and Grades were tolerable in numbers and quality.

Mr. Andrew's stock included a yearling Buck which took the first prize both at the New-York and New Haven fairs, and a ewe recently imported from the herd of the Duke of Buccleugh. Marcus Smith, Cornwall, and George Hitchcock, Washington, were also exhibitors of New Oxfordshires; and we were told by Mr. Andrew, that of \$45 offered in premiums for long-wooled sheep at the Connecticut fair, his stock and its descendants, in the hands of different individuals, took \$40. Mr. Campbell's Silesians were first premium sheep at New-York, and obtained a like honor here.

SWINE.—These were very few, and included nothing of decided superiority. The Suffolks were predominant, and among exhibitors of these, we have the names of P. T. Barnum, Bridgeport, Henry Olmstead and S. E. Chapman, Hartford. Mr. Chapman's Imported Sow was a good animal. We may mention here the "Model Pig Pen" of R. M. Abbe, as it was called. It was in fact a model trough for their feed,—having a fender above, both to keep them from getting into it, and to be gauged in height to admit big or only little pigs as is wanted,—thus preventing the large from monopolizing all the food. We heard it highly recommended and should judge it a valuable addition to the piggery.

The POULTRY DEPARTMENT was not so largely represented or so worthily as it might have been. The principal exhibitors were J. G. North, New Haven, whose fowls did not compete for premiums, as he was on the Examining Committee, and P. T. Barnum of Bridgeport, who took the first prize for the largest collection. We noticed a beautiful pair of Ebon Game Fowls, but have lost our memorandum of the owner's name.

The tent devoted to FRUITS and FLOWERS was neatly arranged. Among the exhibitors of the former were Hovey & Co., Boston, with their table-load of Pears; Solomon Porter, New Haven, who had 45 varieties of apples, constituting a fine show, 6 of Peaches and several of Pears; Charles Robinson, who had a good assortment of Pears; C. B. Lines, with 46 varieties of the same; C. W. Kellogg, with a splendid basket of Pippin apples, and Norman Kellogg with fine Greenings. The show of Apples was excellent, that of Pears good. Foreign Grapes were shown by Jos. Eldridge, Jr., Norfolk; Jas. Craig, who had other fruits beside; P. H. Ashton, Middletown, and E. E. Clarke, New Haven. Dr. Eli Ives showed 6 varieties of Seedling Pears, which appeared well, though we had no opportunities to judge further. S. and L. Hurlbut exhibited a seedling apple of their own raising, and called after their name,—of fine appearance, ripe from Nov. to Jan., and ranked by Cole in the first class. Of Flowers there

was not a large show, nor so fine a one as we had anticipated. There were, however, some pretty bouquets and floral designs. A cornucopia of grasses, said to contain 100 varieties, shown by A. P. Munson, attracted considerable attention, as did also a pomegranate tree contributed by Dr. E. H. Bishop.

Of the VEGETABLES we may say without hazarding any blame for extravagant compliment, that they were very considerably superior to those shown at New-York. The assortment included about the same number of exceedingly bulky pumpkins and snaky cucumbers, but more and better of some other varieties of garden produce. Ira Twiss, Meriden, with several bags of wheat, buckwheat, and rye flour; Mr. Gilbert, Hampden, with barley and various vegetables, and Wm. A. Clarke, Bethany, who exhibited several varieties of potatoes and corn, raised from reclaimed swamp land without manure, were among those who brought of their harvests to fill this tent.

The DAIRY was fairly represented,—our friend J. T. NORTON, Esq., taking the first prize for Butter, and H. Morse of Litchfield for Cheese.

There was a good show of *Agricultural Implements* made by Messrs. Munson & Johnson of New Haven,—they and others contributing about the same variety as was present at other fairs of the season. Russell's Mowing Machine was among the new claimants for popular favor. Its construction seemed simple; the knives are reversible, so that one edge being dull, the other can be used, and we do not see any reason why it should not do good work. Halliday's Wind Mill, of which we give a cut in this number, was also on exhibition.

DOMESTIC MANUFACTURES were well represented, but we have not room to speak of them at large. Suffice it to say that they drew a large share of attention, especially from the ladies present.

We cannot close without referring to the exertions of Mr. HENRY A. DYER, Secretary of the Society, to whom as well as to Mr. S. H. HUNTINGTON, President, and Prof. JOHN A. PORTER, Treasurer, great credit is to be awarded for the success of this first anniversary of the Farmers of Connecticut. We are ourselves under obligation to them for attentions during the days of the fair, which we wish to acknowledge. Should the future of their nursing be as brilliant as has been its first entrance on the world, they will have little cause for regret for the association of their names with its early management.

We should estimate the receipts from what sources of information were at our command, as ranging in the neighborhood of \$8,000. Official returns will not, we think, vary much from this figure.

WEIGHT OF TURKEYS.

The following is an accurate statement of the weight of ten turkeys, under the different states of progress, from their live weight to being completely dressed. I have made repeated observations of the kind, with similar results. They were fed as usual the night before they were killed, but not on the morning of that day.

The first column of figures shows the live weight—2d, after they were bled—3d, after they were picked—4th, after crop and entrails were removed, and heads taken off.

Lbs. oz.	Lbs. oz.	Lbs. oz.	Lbs. oz.
6 4	6 0	5 8	4 13
8 10	8 4	7 11	6 10
8 2	7 11	7 2	6 2
14 8	14 11	13 4	13
14 8	14 11	13 4	11 8
12 4	11 12	11 0	9 8
13 12	13 12	12 3	11 5
13 12	13 12	12 4	10 7
14 0	13 6	12 13	11 7

The last weight was for two small ones taken together; these two and the three first were the only hens. The ten crops weighed 10 lbs., and the ten heads 3 lbs. C. T. C

Notes for the Month.

MARL IN ALBANY COUNTY.—Mr. PHILIP MYERS of Bethlehem has recently discovered a rich bed of marl upon his farm about five miles south of this city. It covers an extent of five acres, and is overlaid with from three to five feet of peat or muck. The marl varies in depth from one to five feet, and is of a superior quality. He submitted a specimen to Prof. DAKIN for analysis, who finds its composition to be as follows:

Carbonate of Lime.....	66.21
Phosphate of Lime.....	15.03
Organic Matter.....	10.81
Silica.....	7.95

100 00

Prof. DAKIN thinks the marl might be used to advantage in the manufacture of phosphoric acid, or it might be burned at a profit for mercantile lime. The marl in its present state is valuable as a fertilizer on all soils which require lime, and the peat which covers it is also very valuable on light soils.

STATE POULTRY SHOW.—The New-York State Society for the improvement of Domestic Poultry, are to hold their second annual exhibition at *Utica*, on the 28th, 29th and 30th days of November. Premium Lists and any information desired in respect to the exhibition, may be obtained by addressing D. S. HEFFRON, Prest., or R. U. SHERMAN, Sec'y of the Society, *Utica*.

THE PENNSYLVANIA STATE FAIR, which was held at Powelton, near Philadelphia, last week, was one of the most successful in every respect, that has ever been held in this country. Though none but members, or those who paid \$1., were admitted the first two days, yet the attendance was very large; but on Thursday, when the charge was reduced to 25 cts, nearly Fifty thousand Single and Family tickets, were sold, and it was estimated that at least 100,000 persons visited the grounds during the day

NEW-HAMPSHIRE STATE FAIR.—This Fair was held at the same time as the New-York Fair. The storm affected the first days, and kept many away. A correspondent of the *Tribune*, says the attendance was good on Thursday and Friday, and on the whole the result is favorable. The show of working-oxen was large, and animals splendid. The display in the fruit department was quite extensive. The fine specimens of the varieties exhibited gave strong indications that New-Hampshire is gaining ground, and beginning to appreciate the worth and importance of practical improvements in fruit-growing. The address was by SIMON BROWN, editor of *The New England Farmer*, a practical man, upon the "Practical Features of Agriculture," which he treated in a remarkably practical, utilitarian manner, suited to the taste and abilities of all classes. What rendered it the more palpable to the understanding was his method of making it entirely a matter of dollars and cents, proving satisfactorily that investments in improved stock, and superior tools, were

sure to pay good dividends, while outside speculations in railroad and bank stocks, &c., were very liable to involve the parties in difficulty and embarrassment. His plan was for each person, whether farmer or mechanic, to use his surplus of receipts in the enlargement of his own business, with the workings of which he must be better acquainted than he could be with speculations of any other kind.

CURE OF POTATO ROT—WHAT NEXT?—We have lately received a *very* small pamphlet, containing five minutes reading, with the imposing title, "A scientific exposition of the cause and cure of the potato rot, by J. N. CHANDLER Adrian, Michigan. Price 25 cents." The author informs us in this work, that all other theories of the rot, have "signally failed in ascertaining the hidden cause;" but that here the reasons are so clearly pointed out, that you will wonder with surprise that you had not seen it before."

We do not wish to infringe upon the author's copyright by copying the whole of its contents; but we would remind him, that some of the newest varieties of the potato, obtained from seed, which he thinks are so secure against the disease, have proved quite as liable as older sorts, and much more than some. There are some varieties which are scarcely affected, and there are others that are often entirely ruined; but their age appears to have nothing to do with the matter, for both the young and older classes of varieties, each contain those of all grades of liability to the disease. This theory is by no means new; it was advanced many years ago by others.

As to the electric condition of the atmosphere being affected by iron in the soil, and thus saving the roots, the sheer absurdity of this notion is evident when we state that the oxides and hydrate of iron, (nearly the only form in which iron exists as an ore or mineral,) are quite fair *non-conductors* of electricity; and that moist earth, so well known to be injurious to the potato, is an incomparably better conductor than the above named compounds of iron. So much for this "scientific" exposition. The truth is, there is a lamentable want of scientific knowledge among nearly all classes of writers and non-writers, so far as the principles of electricity are concerned, which accounts for the many attempts made to explain every thing that appears inexplicable, by referring it to electricity, without the slightest real knowledge of the true rationale.

SHELL MARL.—Allow me to invite attention to the advertisement of S. B. RAYMOND & SON. I have used their shell marl the past season on garden vegetables, and am so well satisfied of its richness as a manure, that I purpose to use it extensively. Its discovery will add materially to the stock of fertilizers in this section. I hope the lovers of good crops abroad, will avail themselves of its cheapness to order and test it. An article in the *Edinburgh Encyclopedia*, says "shell marl is composed of animal shells dissolved; contains oil, affects the soil like animal manure, increases the food of plants, aids the soil in attracting food from the air and

prepares the vegetable food for entering the roots of plants." This marl is so rich in carbonate of lime, an active stimulant, that it must mix advantageously with the animal manures of the farm yard. If so, we have discovered an invaluable mine. H. W. BULKELEY *Ballston, Oct. 5, 1854.*

ICE HOUSE AND DAIRY.—Can you or some of your numerous contributors, inform me if I can erect an ice house on the north side of a dairy-room, and opening into it, so as to admit of putting cream and milk either in, or in close proximity to it, so as to get the cool air from it. If so, how would be the most economical way of building the same? would it be better to drain it or not? Any information upon the subject, will be gratefully received by A YOUNG FARMER. *Charlotte, Vt.*

[If any of our correspondents have had any experience in this way, will they please communicate the mode and results?]

LARGE SQUASHES.—At the Fair held in Berlin, Rens. Co., on the 6th inst., Mr. B. B. HEWITT of Petersburg, exhibited four Squashes grown from one seed. Their weights were as follows—11½ lbs.—103½ lbs.—57 lbs.—38½ lbs.—which makes in the aggregate 310½ lbs. The vine with its branches measured 402 feet in length. C. R.

TO DESTROY SORREL.—C. G. recommends the growing of buckwheat, and thinks that one good crop will effectually eradicate the sorrel, and leave the land in fine order. To prevent buckwheat from shelling out in harvesting, he says it should be cut and shocked when damp, and never be handled when dry, except when ready for threshing.

CANADA THISTLES.—A correspondent in Minnesota says that if Canada thistles are allowed to grow until near flowering, the larger the better, and then cut off about three inches above ground, the rains will fill the hollow stalks, and cause them to rot, and thus entirely destroy them. He says that when treated in this way, he has never known them to sprout a second time.

A Cheap and Substantial Fence.

MESSEURS. EDS. CO. GENT.—I have made a fence by drilling into large stones, and putting in the half-quarter inch rods of iron firmly, in the drill holes—then place them along about eleven feet apart. Let the stones be placed crossways with the fence. Then take common rails, and bore inch holes in each end, and slip them down in the rods.

In this way, you see that the rails bear the same position as to distance apart, that they do in common rail fence. Its advantages are, a straight fence and a movable one, and its durability cannot be questioned. It takes less rails than the common rail fence. I think saving of rail will buy the iron rods, and any farmer's boy can do all the work. The rails when they connect, being straight, do not cut each other off as in the common rail fence. If thought best, the stems might be bedded into the ground some. I fill between the stems with small stones, upon which rests the bottom rail. Farmers, try it. C. W. *Lake Grove, N. Y.*

County Fairs.

THE CAYUGA CO. AG. SOCIETY held its Fourteenth Annual Fair at Auburn, Sept. 20 and 21. The attendance is stated to have been greater than on any previous occasion; the weather was propitious, and the pecuniary results seem to have been satisfactory.

Among the exhibitors of pure bred CATTLE, we notice the well known names of Messrs. John R. Page, J. M. Sherwood, Henry Fellows, Hezekiah Bowen, Rufus Remington, Wm. Wise. Wm. Webster, Nathaniel Lynch, Dr. Rotton, and Messrs. Gould, Cornell, Truesdale and others.

Several of the same gentlemen were also exhibitors of SHEEP, HOGS, and POULTRY.

The show of Fruits is said to have been very good, as well as that of Vegetables and Flowers.

The prizes for ladies' riding, were the objects of general interest and formed the grand finale of the whole. For them, there were eight competitors, to one of whom the credit must be given of having introduced rather a new feature in such displays. Miss HENRY of Moravia, rode the most spirited animal on the field *without saddle or stirrup*, and what is the best of it, the judges did not discover her peculiar non-equipment until she was retiring from the ring. They could not do less than award her a special premium, which they incontinently did,—and the *Auburn Journal* says that certain gallant citizens are about to present her a gold watch as an additional token of the public appreciation of her equestrian skill.

HERKIMER, we believe, was the first in the field this year, having held its fair at East Winfield on the 7th and 8th Sept., which appears to have been very successful, the weather having been fine and the attendance large.

On the 13th, 14th and 15th, the annual Fairs of Cayuga, Chautauque, Cattaraugus and Yates, were held, but we have no reports from them.

Cob Crushers.

Are there any machines made in your section of the country for crushing corn in the cob for feed. If so, what is the expense of them, &c Any information you can give me on this subject, will be thankfully received. J. T. J. *Mishawaka, Ind.*

These machines are made at Rochester, N. Y., but we cannot furnish the manufacturer's name. They may be ordered through J. RAPALJE & Co. of that place. The expense, we believe, is about thirty dollars.

HOGS IN INDIANA.—The Cincinnati Price Current says that the assessors' rolls in Indiana exhibit the following comparison of the number of hogs in Indiana during the summers of 1853 and 1854:—

1853	1,580,456
1854	2,168,833

This does not look as if we were to starve for the want of Pork to feed upon.

PROLIFIC EAR OF WHEAT.—An ear of wheat, taken from the field of Wm. Story, Doncaster, England in August last, contained 111 perfect kernels, beside several shrunken ones

RURAL PUBLICATIONS.

THE COUNTRY GENTLEMAN, published weekly, at \$2.00 a year.

THE CULTIVATOR, published on the first of each month, at 50 cents.

As witnessing that the purposes of our Publications are successfully carried out, both to our readers who have already the evidence of their Contents, and to strangers who may on introduction like to look over our credentials before they take us to their homes as a Family Friend and Counsellor, we subjoin below a few extracts from the Letters of our Correspondents and the Notices of the Press. It is however proper to mention that notices or opinions of one will have equal application to both, as nothing appears in the Cultivator that has not been already published in the Country Gentleman, and we aim to make their mechanical execution equally good. Both are amply illustrated and neatly printed on fine and durable paper.

NOTICES OF THE PRESS.

Wayne County Whig.—"We are acquainted with no paper which better justifies the use of an elegant and appropriate title than the COUNTRY GENTLEMAN. It is not only a model of typographical taste, but it is filled with well written and valuable articles, on every topic of interest to the practical agriculturist, whether of acres or of rods. It is a paper of which Mr. TUCKER, the veteran and pioneer of agricultural publications in New York, may be justly proud. We commend it with the greatest cordiality, to the attention of our readers."

Journal, Syracuse, N. Y.—"We however, can not do it more justice than by quoting what an old and intelligent farmer said of *The Country Gentleman*, in our sanctum the other day: 'It contains,' said he, 'every thing that a farmer wants to know, told in the best possible manner, and I mean to study it next to my Bible.'"

Jacksonian, Pontiac, Mich.—"It has never fallen to our lot to meet with a more interesting and readable paper of the kind than *The Country Gentleman*; and we defy any man to rise from a careful perusal of it without feeling himself a wiser and a better man. The price is \$2 per annum, and taking into consideration the great amount of reading matter in its columns, and the fact of its issuing weekly, it is the cheapest paper devoted to the same subject in the world, and we wish it God speed with a hearty good will."

The Northwestern Democrat, (St. Anthony, Min.) "would heartily recommend *The Country Gentleman* to the enterprising farmers who are cultivating, or preparing to cultivate, the broad prairies, beautiful openings, noble forests, or other fertile lands of Minnesota. Its literary character is of the first order, its Moral tone is pure, the style of all its articles is chaste, it will prove itself a *Gentleman* in the most polished circles of society, and is worthy of a place on the best center table in the land."

Vermont Chronicle, Windsor, Vt.—"Its patrons may rely on the conductor's ability and enterprise, his excellent judgment and taste, and purity of moral sentiment. It is a beautiful and every way excellent paper, and we cannot doubt its success."

Free Press, Burlington, Vt.—"The *Country Gentleman*, published weekly by Luther Tucker, Esq., at Albany, is a journal of great merit. We hope it gets, because it deserves, an extensive patronage."

Ohio Cultivator, Columbus, O.—"Mr. Tucker is the most experienced and successful publisher of agricultural papers in the Union, having been nearly a quarter of a century in the business."

The Hudson Gazette, pronounces it "decidedly the best Agricultural publication in the country."

The Winsted Herald says—"On all matters pertaining to the occupation of the Farmer and the Horticulturist as well as to Domestic Architecture and the Country Fireside, it is without a rival."

The Woonsocket Patriot says—"It is the neatest as well as the best paper of its kind."

Daily Democrat, Chicago, Ill.—"The *Cultivator*, is one of the oldest and best agricultural journals in the country. Through a long series of years it has preserved a wide spread popularity among the farmers of New York and the adjoining States. In addition to the able and experienced pens its editor, Luther Tucker, Esq., and his assistants, it has always had a large number of correspondents from among the practical agriculturists, the valuable results of whose experience are thus given to the readers of the *Cultivator*."

The Herald and Free Press, Norristown, Pa., says of *The Cultivator*, that it is "well known as among the best works of the kind in the country."

The Southern Mirror, says "The *Cultivator* is by far the best agricultural journal in America. It is elegantly illustrated, and every part is well filled."

EXTRACTS FROM LETTERS.

From a gentleman in Massachusetts distinguished for his scientific attainments and his practical skill as an agriculturist—"I cannot close without expressing the gratification I feel in reading the *Country Gentleman* from week to week. If the hearty approbation of a single reader is of any worth to you, you have mine most heartily, I assure you."

From a subscriber in Western New York—"I consider the *Country Gentleman* the best paper for farmers I have yet seen."

From a subscriber in Ohio—"Let me say to you, that I think the *Country Gentleman* decidedly the best Agricultural paper in the country, and I have seen and read many, for their name is legion."

From another subscriber in Ohio—"I value the *Country Gentleman* as the BEST OF SIXTEEN Agricultural papers which I take."

From a subscriber in Maine—"I like your paper more and more every day, and I liked the first number very much."

From a subscriber in Illinois—"I prefer the *Country Gentleman* to any of the Agricultural papers I am acquainted with."

From a subscriber in Connecticut—"It is perhaps unnecessary for me to say how much I have been pleased and instructed in reading the *Country Gentleman*."

From a gentleman in Vermont, distinguished both as a writer and an Agriculturist—"The *Country Gentleman* is, BY FAR, at the head of the Agricultural Journals of the United States."

From a subscriber in Michigan—"I cannot get along without it—in fact, it is the best paper I ever read."

From a subscriber in Kentucky—"Of all the papers I have ever read there is none in comparison to the *Country Gentleman*—you need not ask me for what, for it is FOR EVERY THING."

From a subscriber at Concord, Mass.—"Your paper is indubitably the best paper in the country."

A subscriber at Pittsburgh, Pa., says: "I read the *Country Gentleman* with much pleasure and profit; and I think there is but one sentiment among its numerous readers, and that is, that it is the leading agricultural periodical of our country, useful and practical."

From another at Pittsburgh, Pa.—"I read the *Country Gentleman* with much pleasure and profit, and believe it to be one of the BEST agricultural papers in the country."

Another at Plattsburgh, in sending his subscription, says:—"I cannot refrain from expressing to you the great satisfaction I have had in reading the COUNTRY GENTLEMAN. I consider it the most valuable family paper for the Farmer that I know of, and I cannot doubt but your list of subscribers will steadily, if not rapidly increase. If I can influence any of my neighbors to subscribe to it, I consider I am doing them and their friends a material service."

From a subscriber in Dutchess county: "I have taken the *Country Gentleman* since it was first published, and I think it the best agricultural paper I ever took, if not the best published in the land."

A subscriber in Essex County (Mass.) says.—"I cannot close this without expressing my admiration of the *Country Gentleman*. The manner in which it is got up is excellent; but its contents I think are unsurpassed by any similar paper in this country. This is saying a good deal, but it is my judgment, and I wish you all success for your exertion and untiring energy in the good cause in which you are engaged."

A subscriber writes from the neighborhood of Cincinnati: "I am convinced its circulation would do much good here.—No one can read the fifteen or twenty good articles in each number without wishing to continue his acquaintance with such a familiar friend;—many of them worth, in themselves, many times over, the subscription price for a whole year."

Fresh Imported Dutch Bulbous Roots.

THE subscribers have just received in the finest possible condition, a large and very complete assortment of *Bulbous Roots*, embracing every desirable variety of single and double Hyacinths for flowering, in pots and glasses, or for bedding out.—Early *Roman Narcissus* (usually flowers about Christmas;) the best varieties of *Polyanthus Narcissus*; *Crocus*, some 25 named varieties; early and late, single and double *Tulips*; *Jonquilles*, *Snow-drops*, *Crown Imperials*, *Fritillarias*, *Iris*, *Gladiolus*, *Ixias*, *Liliums*, *Double Narcissus*, *Ranunculus*, *Anemones*, *Arums*, *Pancreatiums*, *Aconites*, *Colchicums*, &c., &c.; all of the best qualities, imported to order, from the oldest and most extensive Flower Nursery in Holland, warranted sound, true to name and color, and at prices as low as are usually paid for inferior roots at auction—can be packed and safely sent to any part of the United States—A large assortment of plain and colored China and Glass Hyacinth Glasses, fancy *Crocus Pots*, &c., &c., always on hand.

Just published—*Thorburn's Descriptive Bulb Catalogue* for 1854, with prices and full directions for the management and cultivation of Bulbs in the parlor or garden, furnished gratuitously to purchasers and Post-paid applicants. *Wholesale Price Lists*, for dealers and nurserymen, on application.

J. M. THORBURN & CO.,
15 John-st., New-York.

Fresh Garden, Field and Flower Seeds, of the finest quality. Bird Seed of all kinds. Catalogues furnished, and dealers supplied on the most liberal terms. Oct 12—w4tm1t

SHELL MARL.

THE subscribers are now delivering their superior Shell Marl on the cars, at \$2 per cubic yard.

Prof. Dakin of the Albany Medical College, gives the following analysis: In 100 parts, Carbonate of Lime 88½, Organic matter 10, insoluble Silicious matter 1½. *Richly nutritive and stimulant.* What fertilizer is offered more cheaply?

S. BRADLEY RAYMOND & SON.

Oct 12—w1tm2t* Jonesville, Saratoga Co N. Y.

Horse Powers and Threshers

OF all the most approved kinds—Wheeler's, Westinghouse's and Emery's Railway Powers and Threshers. *Taplin's*, *Bogardus's*, *Palmer's* and *Eddy's Sweep Powers* and Threshers. For sale by **LONGETT & GRIFFING**,
Sept. 1—m3t No. 25 Cliff street, New-York.

SPANISH MERINO SHEEP.

THE subscribers offer for sale 12 Bucks, and 15 Spanish Merino Ewes, at very reasonable prices.

A part of the sheep are a cross of the Atwood flock. A rare opportunity is afforded to farmers to improve their flocks at a small expense.

L. S. & L. R. WELLS,
New Britain, Ct. Aug 17—w1tm3t.

Asiatic Fowls for Sale.

50 PAIR *Brahma Pootra*; per pair.....\$3 to \$5
50 do. *Buff* and *Red Shanghai*; ".....\$2 " \$4
All perfectly healthy and warranted pure bred. References—Dr. John H. Cole and S. V. C. Van Rensselaer.

E. G. STUDLEY
Sept. 7—w1tm1t. Claverack, Col. Co., N. Y.

Fruit and Ornamental Trees,

At the *New Canaan Nursery*, situated in *New Canaan (Ct.)*
3 1-2 miles from *Norwalk R. R. Depot*.

THE subscribers offer for sale, the coming Autumn and Spring, one of the largest stocks of **FRUIT TREES** in New England, carefully grown and propagated by ourselves.

Our stock consists in part of 40,000 Apple Trees, of suitable age and size for transplanting, of the most popular varieties.

15,000 Peach Trees, one and two years from the bud, of a healthy origin.

Also a stock of Pear, Plum, Cherry, Apricot and Quince Trees.

Red Antwerp, Franconia and Fastolf Raspberries.

ORNAMENTAL TREES. Norway Spruce, Balsam Fir, Arborvitae, Scotch Pine, Horse Chestnut, Mountain Ash, Larch, and various others.

50,000 Apple Seedlings, 2 years old.

Persons wishing to purchase in large or small quantities, will find it to their interest to communicate with us

STEPHEN HOYT & Co.
New Canaan, Ct.

Sept. 1, 1854—w1tm2t.

Albany Agricultural Works,

Warehouse and Seed Store, 369 and 371 Broadway, Albany.

THE subscriber having purchased the stock in trade of the above works, is now prepared to furnish to order a full assortment of Farm Implements and Machines adapted to all sections of the country, both north and south, among which may be found—

"Emery's Patent Changeable Railroad Horse Powers."

Overshot Threshing Machines with Separators.

Mowing and Reaping Machines.

Grist-mills, Corn-shellers and Clover-hullers.

Circular and Cross-cut Saw-mills, adapted to the horse power, for cutting fire wood and fence stuff, with a full and complete assortment of **FIELD AND GARDEN SEEDS** and **FERTILIZERS**. For further particulars, full Catalogue will be sent on application by mail.

RICH'D H. PEASE,

March 30—w&mtf Successor to Emery & Co

Choice Poultry for Sale.

BRAHMA Pootra or Chittagongs—Royal Cochins Chinas—White, Black, Buff and Brown Shanghaes—Black Spanish and Gold and Silver Polands, all warranted pure blood, and of the best importations in the country, or from specimens which took the first and second premiums at many of the recent exhibitions.

Fowls to be sent a distance, will be carefully cooped in good health and good condition. All orders post-paid.

Reference, C. W. GODARD, Esq., B. B. KIRTLAND, Esq.,
GEORGE ANDERSON,
56 Schuyler st. Albany, N. Y.

Sept. 1—w&mt3m.

Thomas Gould,

BREEDER OF DEVON CATTLE, Suffolk Swine, Madagascars or Lop-Eared Rabbits, and choice and fancy Poultry, Aurora, Cayuga county, N. Y. Mar. 23—w&mtf

Fertilizers.

BEST Peruvian Guano—

Super-Phosphate of Lime, "DeBurg's No. 1"—

Poudrette, of the best quality—

Ground Plaster, suitable for agricultural purposes—

Ground Bone, Bone Dust, and Burnt Bone.

Also, Grass Seeds of reliable quality, at the lowest market price.

GEO. DAVENPORT, 5 Commercial,
Feb. 9, 1854—w&mtf cor. of Chatham st., Boston.

Appleton & Alderson's Drain Tile Works,

Corner of *Lydius* and *Snipe streets*, Albany, near *Mr. Wilson's Nursery*.

THE subscribers are prepared to furnish Drain Tile of the various and most approved Patterns, at from \$12 to \$18 per 1000 pieces. The Tile are more than 14 inches in length and a larger calibre than any of American manufacture for the same prices. We warrant every Tile to be perfectly sound, to fit good at the joints so as to admit water and keep out the dirt, and to drain Land from 12 to 20 feet on each side of the drain, according to the nature of the soil.

Also, large Tile for small brooks and drains about dwellings, &c. at from \$4 to \$8 per 100 pieces.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at Messrs. L. & W. MERCHANT's, 71 Quay-st.

Full directions for laying Tile will be sent free to those addressing the subscribers. Orders are respectfully solicited.

Address, APPLETON & ALDERSON,

April 13—wew&mtf 195 Washington-st, Albany, N. Y.

Albany Tile Works,

Corner of *Patroon* and *Knox-Streets*, Albany, N. Y.

DRAIN TILE of the following descriptions and prices suitable for land drainage, always on hand in large or small quantities of the first quality, delivered at the docks and railroad depots free of cartage:

Horse-Shoe Tile.

4½ inch caliber,.....\$18 per 1000 feet.
3½ do 15 do
2½ do 12 do

Sole Tile or Pipe.

3 inch caliber,.....\$18 per 1000 feet.
2 do 12 do

Large Tile for drains about dwellings, yards, &c., of various sizes, \$4 and \$8 per 100 feet. Sole Tile, 4 inch calibre, for sink drains at \$4 per 100 feet. Drain your land and save your crops. Orders from a distance will receive prompt attention.

A. S. BABCOCK.

Albany, April 20, 1854—w&mt6m

THE HORSE, THE HORSE,

Noblest of Domestic Animals,

AND the one most frequently ill-treated, neglected and abused. We have just published a book so valuable to every man who owns a Horse, that no one should willingly be without it. It is entitled,

THE MODERN HORSE DOCTOR,

And is from the pen of a celebrated English Veterinary Surgeon, Dr. GEO. H. DADD, well known for many years in this Country, as one of the most successful, scientific and popular writers and lecturers in this branch of medical and surgical science. The book which he now offers to the public, is the result of many year's study and practical experience which few have had.

From the numerous and strong commendations, of distinguished men and the newspaper press, we select the following:

Extracts from a letter from Hon. John H. Clifford, Ex-Governor of Mass.

NEW BEDFORD, May 11, 1854.

DR DADD,—Dear Sir:—I hope your new work on the noblest creature that man has ever been permitted to hold in subjection, (the Horse) will meet with that success which all your efforts in this direction so well deserve.

Your obedient servant,

JOHN H. CLIFFORD.

From Hon. Marshall P. Wilder.

Boston, May 13, 1854.

Dr. DADD,—My Dear Sir:—I am greatly obliged to you for the valuable treatise, the results of your own investigations, which you have recently issued. Hoping that it may meet with the patronage of a discriminating community,

I remain yours with great regard,

MARSHALL P. WILDER.

The *Modern Horse Doctor*, by Dr. G. H. Dadd, is a manual of genuine science, and ought to be owned and studied on the score of humanity, as well as interest, by every man who owns a horse.—*Boston Congregationalist*.

Dr. Dadd has had great experience in the cure of sick horses, and explains the secret of his success in this vol.—*N. Y. Tribune*.

The author of this work is well known as a most skillful veterinary surgeon. His book is based on the soundest common sense, and as a hand book for practical use, we know of nothing to compare with it.—*Yankee Blade*.

We know Dr. Dadd well, and are satisfied that he possesses most important qualifications for preparing such a book as this.—*New England Farmer*.

Messrs. Jewett & Co. have just published a very valuable work by Dr. Dadd, a well known veterinary surgeon, on the causes, nature and treatment of disease, and lameness in horses.—*Farmer's Cabinet*.

This is one of the most valuable treatises on the subject, ever published; and no owner of that noblest of the animal race, the horse, should be without it. Especially should it be in the hands of every hotel and livery-stable keeper. To many a man would it be worth hundreds of dollars every year.—*Ind. Democrat, Concord*.

By far the most learned and copious work on the horse and his diseases we have ever seen.—*N. Y. Ecologist*.

One of the greatest and most commendable qualities of this work, is, it is *practical* and plain to the comprehension of those farmers and others for whom it is mainly designed. The course of treatment favors generally a more sanative and rational system of medication than that recommended in any previously existing works on farriery. No farmer or owner of a horse should be without this book. Stable keepers, stage proprietors and hackmen we believe would derive profit by having at least one copy hung up in their stables for use and reference by their stable men.—*Daily News, Philadelphia*.

There is more common sense in this book than any of the kind we have ever seen, and farmers and owners of horses would find it a matter of economy to possess themselves of it. It will be of more service than the counsel of a score of ordinary doctors.—*Albany Courier*.

We deem this decidedly the best and most reliable work on the "Cause, Nature and Treatment of Disease and Lameness in Horses," ever published.—*Nantucket Inquirer*.

What we have read of this book induces us to regard it as a very sensible and valuable work; and we learn that those much more competent to judge of its value, have given it their unqualified approval.—*Evening Traveler, Boston*.

This book supplies a great desideratum which Skinner's admirable treatise on the Horse did not fill. Every man may be his own veterinary surgeon, and with much greater safety

to this noble animal, than by trusting him to the treatment of the empirical itinerants who infest the country. It is well illustrated, and should be purchased by every man who owns a horse.—*Ev. Mirror, N. Y.*

This is a book that should be forthwith put into the hands of all who own or drive horses, whether for the dray or gig, for the plow, omnibus or road, for hard service or pleasure.—*McMakin's Courier, Philadelphia*.

A good clearly written book, which should be in the hands of every man who has a horse whose ill his affection or his purse make it worth while to cure.—*Bangor Mercury*.

This is a scientific, thorough and complete treatise upon the diseases to which one of the noblest of animals is subject and the remedies which they severally require.—*Troy Daily Budget*.

It is a valuable book to those who have the care of Horses.—*Harford Herald*.

He is not worthy to have a horse in his care who will not use such a work to qualify himself for his duties to this animal.—*Commonwealth, Boston*.

PUBLISHED BY

JOHN P. JEWETT & CO.,

BOSTON,

Jewett, Proctor & Worthington.

CLEVELAND, Ohio.

For sale by all Booksellers. Sept. 1—w&m3m.

YALE SCIENTIFIC SCHOOL.

THE FALL TERM in this Institution, will commence on Wednesday, Sept. 13th, and continue fourteen weeks.

FACULTY.

BENJAMIN SILLIMAN, M.D., LL.D.,
Professor of Mineralogy and Geology.

WILLIAM A. NORTON, M.A.,
Professor of Civil Engineering.

JAMES D. DANA, LL.D.,
Silliman Professor of Natural History.

BENJAMIN SILLIMAN, Jr., M.D.,
Professor of General and Applied Chemistry.

JOHN A. PORTER, M.A.,
Professor of Analytical and Agricultural Chemistry.

The object of this School is to fit students for the practical application of the branches taught. For particulars, apply to the Professors in the several Departments, or to

JOHN A. PORTER, Dean of the Faculty.

New-Haven, Ct., Aug. 17, 1854—w4tm3t.*

GUANO NOTICE.

AS there is a substance now selling by some dealers in this city and Brooklyn, for the No. 1 Peruvian Guano, we caution the agricultural public who may purchase Peruvian Guano this season, to observe that every bag of the genuine article will have the following brand:

NO. 1,
PERUVIAN GUANO,

IMPORTED BY

F. BARREDA BROTHERS.

The price is now established for this season, at \$50 per ton of 2,000 lbs. When taken in lots of five tons and upwards, a discount will be made.

LONGETT & GRIFFING,
State Agricultural Warehouse, No 25, Cliff-Street
Aug. 17—w6tm2t New-York.

Land for Sale.

THE subscriber offers for sale, a portion of his valuable Tract of Land, situated in the county of Fairfax, Virginia, on, and near the Turnpike leading from Georgetown to Leesburgh, 16 miles from the city of Washington, 2 miles from the Potomac river and canal, and within 2 miles of the Loudoun, Alexandria, and Hampshire Rail Road. The tract contains about 2000 acres of Land; of which, from 500 to 600 are in a heavy growth of oak and chestnut, and the remainder of the wood land is in pines of the second growth. It is of a deep red soil, and adapted to Grain, Plaster, Clover, and all kinds of Grass. On the premises are 4 comfortable Dwelling-Houses, and also a Grist-Mill, but not in running order. The land will be sold in lots of 100 or 200 acres, or as the purchaser may desire. For further particulars inquire of the subscriber on the premises.

S. S. MILLER,
July 1, 1854—mtf Spring-Vale, Fairfax Co., Va.

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RURAL PUBLICATIONS,

WEEKLY AND MONTHLY.

THE subscriber continues the publication of his weekly and monthly Agricultural Journals, viz:

THE COUNTRY GENTLEMAN—a weekly Journal for the Farm, the Garden and the Fireside—forming two large and beautiful quarto volumes of 416 pages yearly. This journal, which has now been published nearly two years, combines in one large sheet, an AGRICULTURAL, HORTICULTURAL and FAMILY JOURNAL, furnishing, besides its large amount of practical matter on Rural Affairs, in its FIRESIDE DEPARTMENT, a choice collection of articles peculiarly adapted to interest and exalt the views and aims of the FAMILY CIRCLE, together with a careful digest of the NEWS OF THE WEEK, and a full report of the PRODUCE and CATTLE MARKETS; and it will be the constant aim of the publisher to make it indispensable to the Farmer, and desirable to every one who has a rod of ground to cultivate, or a home to beautify—and by devoting its columns to IMPROVEMENT IN AGRICULTURE, ELEVATION IN CHARACTER, and REFINEMENT IN TASTE, to render THE COUNTRY GENTLEMAN the standard in its sphere.

Terms—\$2.00 a year—Three copies for \$5.00.

THE CULTIVATOR.—This work, which has now been published for twenty years, is too well known in every part of the Union, to need commendation. It is believed that it is not too much to say that it has always enjoyed the reputation of ranking as the first of our monthly rural journals. It is now published at FIFTY CENTS a year.

☞ All letters to be addressed to LUTHER TUCKER, Ed. Co. Gent. and Cultivator, Albany, N. Y.

☞ Editors with whom we exchange, will greatly oblige us by publishing the above, and sending us a copy marked.

Agricultural Books,

For sale at the office of the Country Gentleman.

To be issued on the 1st of December next,

THE ILLUSTRATED
Annual Register of Rural Affairs

AND
CULTIVATOR ALMANAC for 1855,
ILLUSTRATED WITH

More than One Hundred Engravings.

In one 12 mo. vol., 144 pp.,—price 25 cents.

THE SUBJECTS TREATED IN THIS VOLUME,
embrace—

I. CALENDAR PAGES for the year 1855, calculated for the meridians of Boston, New-York, Baltimore and San Francisco.

II. COUNTRY DWELLINGS—including Designs for a Symmetrical Farm-House—an Italian Country House—a Cheap Farm-House—Working-men's Cottages, and Directions for Improving old Houses—with TEN ENGRAVINGS.

III. IMPROVING AND PLANTING GROUNDS—Flower Gardens—Geometric and Natural Planting—Form of Trees—Supports for Climbers—the whole illustrated with TWENTY-ONE ENGRAVINGS.

IV. THE CULTURE OF FRUIT—Preparation of the Soil—Draining—Distances and Laying out the Ground—Transplanting—Its Proper Season—After Management—Cultivation of the Soil—Pruning—Grafting—Budding—Diseases and Enemies of Fruits—List of the Best Sorts. This department is illustrated by FORTY FIGURES.

V. FARM BUILDINGS—Plan of Barn and Stables—Of Piggery—Of Poultry House—Of Ashery and Smoke House—Construction of Cisterns—with ELEVEN ILLUSTRATIONS.

VI. FARM IMPLEMENTS, &c.—Mowers and Reapers—Machines to Pulverize the Soil—Wind Mills—Stump Machines—Feeding Troughs—Painting Implements—with NINETEEN ILLUSTRATIONS.

VII. IMPROVEMENT IN ANIMALS—Cattle—Horses—Sheep—Swine—Terms denoting External Parts of Animals—Heaves in Horses—with SEVENTEEN ILLUSTRATIONS.

VIII. FARM ECONOMY—Improved Farm Management—Rotation of Crops—Laying out Farms, with THREE ILLUSTRATIONS—How Young Farmers may Practice Economy—Plans Laid in Winter—Construction of Lightning Rods—Fruit Drying.

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It will be seen from this abstract of the contents of the *Illustrated Annual Register*, that it has been prepared with special regard to the wants of our rural population, and we hazard little in saying that it will afford more valuable information on several of the subjects of which it treats, than has ever before been presented at so small a cost. The chapters on Country Dwellings—Improving and Planting Grounds, and the Culture of Fruit, have been prepared by Mr. J. J. THOMAS, with his usual taste and ability, expressly for this work, and are each well worth more than its cost.

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